

**SH-16  
CORRIDOR IMPROVEMENT STUDY**


**PROJECT NO. STP-3330(105)  
Key No. 8630**

**Environmental Assessment**

**SUBMITTED PURSUANT TO 42 USC 4332(2)(c) AND  
49 USC 303 BY THE  
U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
AND  
IDAHO TRANSPORTATION DEPARTMENT BOISE, IDAHO**

Date of Approval

8-10-04

  
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# DESCRIPTION OF PROPOSED ACTION

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## Location, Length, and Termini

The Idaho Transportation Department (ITD) proposes to improve approximately 14 miles of Idaho 16 from the junction of State SH 44 (SH 44) (mile post [MP] 0.000) north to SH 52, South Washington Avenue (MP 13.927) in Emmett (figures 1 and 2). The entire length of Idaho 16 from SH 44 to SH 52 was studied and represents a stand-alone project; as such SH 44 and SH 52 are the logical termini.

## Independent Utility

The COMPASS regional model was used to review various scenarios of alternatively widening Idaho 16 and SH 44 and evaluating the impact of each one. The modeling shows that widening either Idaho 16 or SH 44 alone does not appear to require a corresponding widening of the other roadway. This indicates that the Idaho 16 improvement project has independent utility.

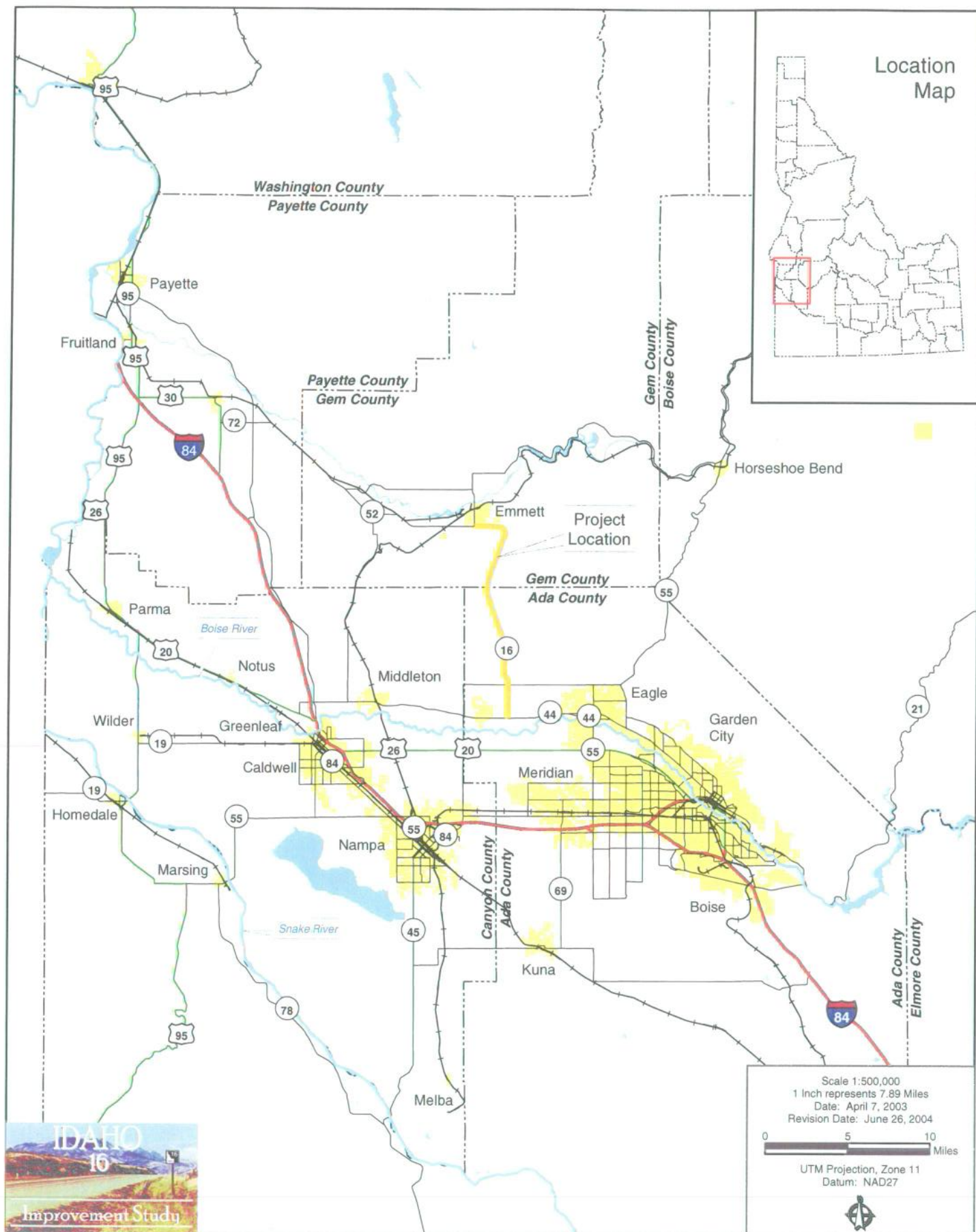
## Description

The environmental document for the Idaho 16 Improvement Study incorporates by reference environmental documentation on four related projects in the corridor. Those projects consist of Freezeout Hill South Passing Lanes (MP 7.5–MP 10.0), Firebird Raceway Passing Lanes (MP 3.5–MP 4.8), Freezeout Hill Passing Lanes (MP 10.0–MP 12.2), and Idaho 16, Intersection Substation Road Near Emmett.

Approximately 400 acres of right-of-way (ROW) will be acquired for the total build out of the project. However, the ROW acres estimated in this document reflect the most current design and are subject to change in the final ROW negotiation processes.

The Idaho 16 improvement project will be conducted in multiple phases of ROW acquisition and facilities construction. ITD projects that ROW for this action will be purchased over a period of ten years. To take advantage of available funding, construction to widen Idaho 16 will occur in several phases.

Frontage and backage roads will be built only to control and preserve access. Where no access is needed at this time, frontage and backage roads will not be built; however, the ROW for those areas will be acquired and preserved for future construction. Development will determine when these sections of roads are constructed. The future construction cost of these segments will be the responsibility of the developer(s) needing access to Idaho 16.

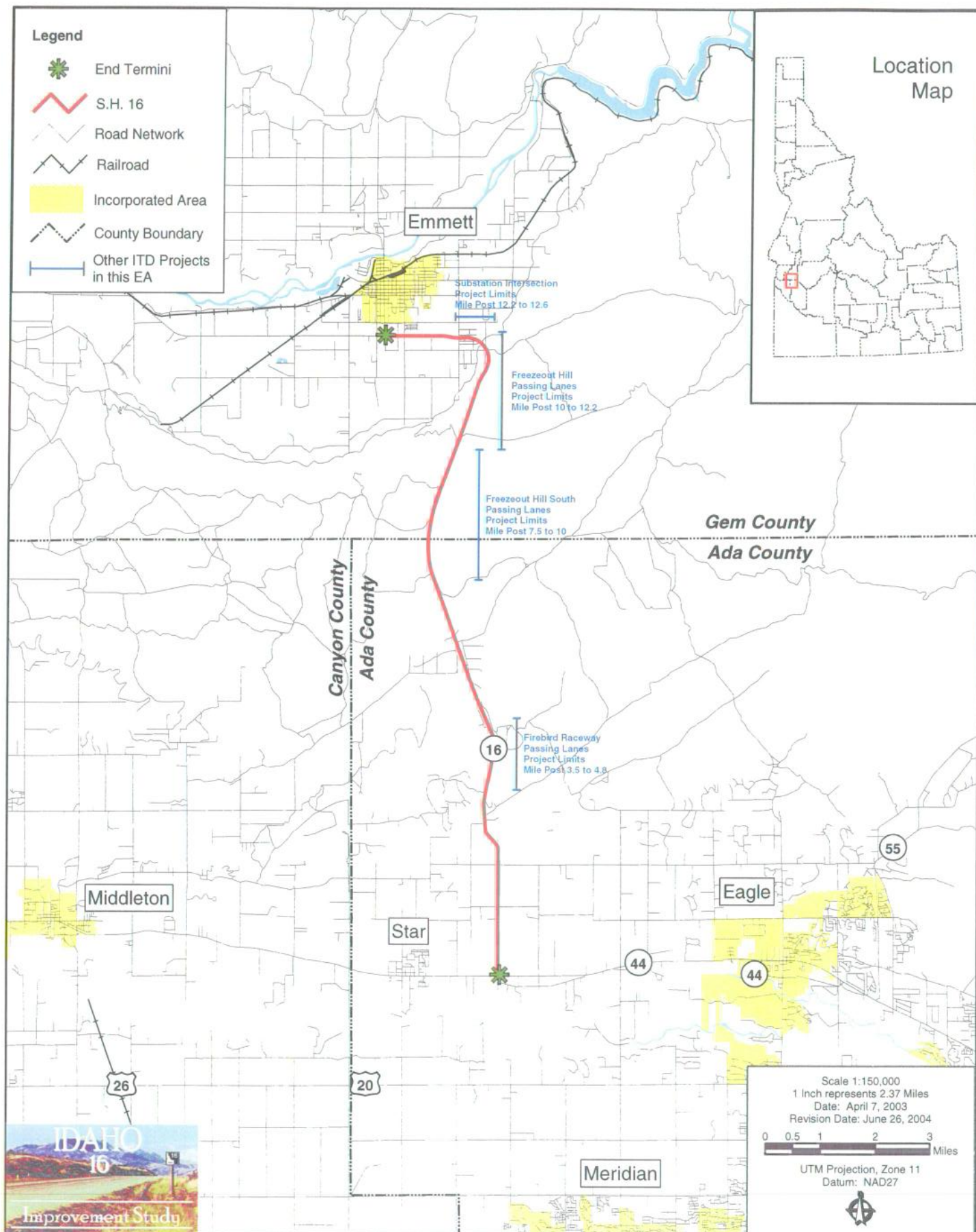


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This MAP is based on information from numerous sources and the accuracy of which is not guaranteed by the Idaho Transportation Department. The Idaho Transportation Department is not responsible and shall not be liable to the user for damages of any kind arising from the data or information shown of this map.

**Figure 1:**  
**State Location Map**  
*Idaho 16 Improvement Study*





**Figure 2:  
Project Location Map**

*Idaho 16 Improvement Study*

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Existing access will be incorporated as improvements are built. Temporary access will be allowed in the interim period; however, these accesses will be realigned as part of future programmed projects. Only frontage roads are proposed on the north end of the project—where there is currently no development. ITD plans to buy adequate ROW to accommodate these roads. A combination of frontage and backage roads are proposed on the south end of the project—only to the extent required to replace existing Idaho 16 access.

## Major Design Features

The proposed project consists of replacing the existing two-lane road with a four-lane, divided highway using Type IV access control. Under Type IV access, the minimum spacing requirement is 2,640 feet (0.5 mile) in urban areas and 5,280 feet (1 mile) in rural areas. The current ITD access policy states that access control on all segments of the State Highway System shall be upgraded to match the most current functional classification while utilizing joint use approaches and developing frontage and backage roads. Safe accommodation for bicycle and pedestrian traffic will be provided as required by federal regulations. This section describes the Preferred Alternative as shown in figure 3.

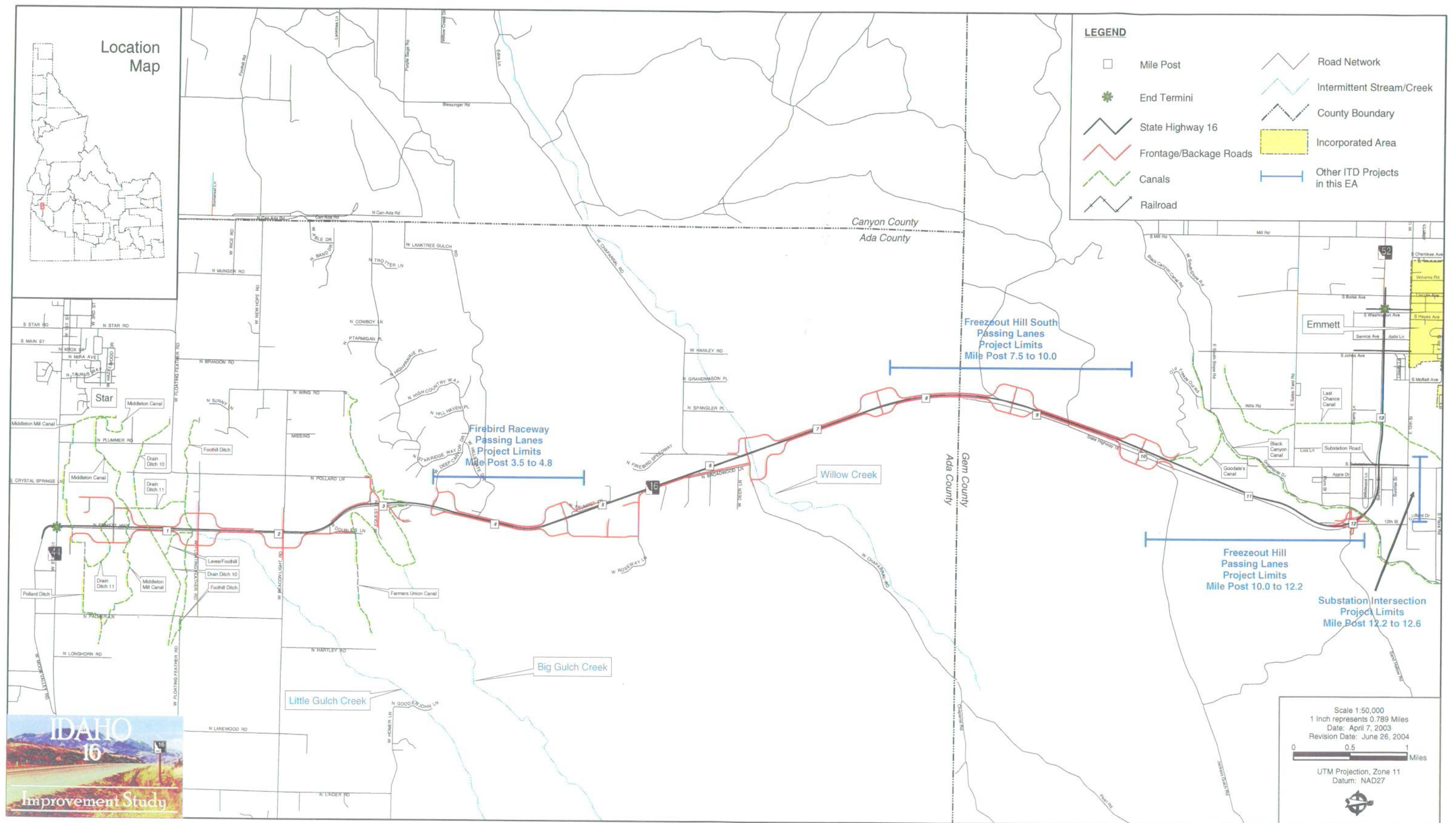
The Preferred Alternative will maintain the existing Idaho 16 alignment and will be widened from 28 feet to 72 to 92 feet. From SH 44 to Substation Road, the project will include four 12-foot travel lanes, 10-foot shoulders, and a 4-foot median (figure 4). The AASHTO Green Book states that:

“desirably, a vehicle stopped on the shoulder should clear the edge of the traveled way by at least 1 ft, and preferably 2 ft. This preference has led to the adoption of 10 ft as the normal shoulder width that should be provided along high-type facilities.” (AASHTO 2001)

In addition, safety concerns along Idaho 16 coupled with number of farm and wide recreational vehicles ITD determined that 10-foot shoulders will provide drivers with more area of refuge along the traveled way. From Substation Road to SH 52, the road will include four 12-foot travel lanes, 8-foot shoulders, 6-foot sidewalks on both sides, and a 14-foot median. All existing access points to Idaho 16 from Substation Road to SH 52 will be maintained due to the highway’s urban nature, and no frontage or backage roads will be provided in this section. For the rest of Idaho 16, frontage/backage roads will be 32 feet wide, with two 12-foot travel lanes and 4-foot shoulders.

Intersection improvements will be made at all intersecting roadways with the addition of turn lanes. All crossings will be at-grade intersections, with the exception of Cherry Lane/Sand Hollow Road, which will be improved to a new diamond interchange.

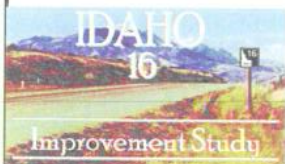
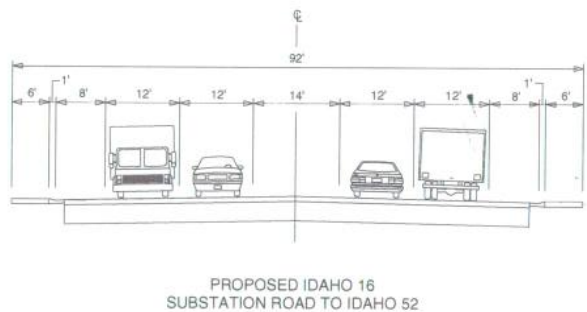
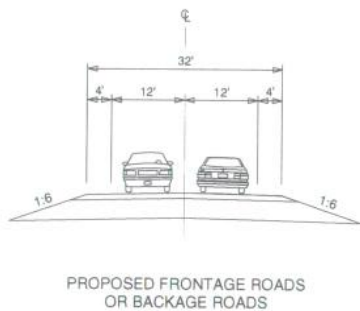




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**Figure 3:**  
**Project Location Map with the Preferred Alternative**  
*Idaho 16 Improvement Study*



Scale 1:500,000  
1 Inch represents 7.89 Miles  
Date: April 7, 2003  
Revision Date: August 18, 2004



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Figure 4:  
Typical Roadway Section

Idaho 16 Improvement Study

Safe accommodation for bicycle and pedestrian traffic will be provided on this project as required by 23 CFR 652. As indicated above, sidewalks will be provided on the segment from Substation Road to SH 52 along with 8-foot shoulders. Bicycle traffic will use the shoulder along this segment. For the segment from SH 44 to Substation Road, the 10-foot shoulders will provide ample room to accommodate both pedestrians and bicycle traffic. The Idaho 16 and SH 44 intersection area is an established urban area without frontage roads. Therefore, the current proposal follows Ada County Highway District Ada County Highway Department's (ACHD) policy, but allows curb, gutter and sidewalk to be incorporated along the frontage roads as development occurs. According to ACHD's policy, developments with any buildable lot that is less than 1 acre in size will typically provide streets having a minimum pavement width of 32 feet with curb, gutters, and sidewalks.

ITD will acquire the ROW needed to widen the mainline and preserve a corridor for future frontage/backage roads. Future development will determine when these roads are built.

The environmental assessment for the Idaho 16 Improvement Study will be an umbrella document and incorporates by reference three projects listed below that do not require additional ROW and share the same footprint as the Idaho 16 Improvement Study (figure 3). A fourth related project, Freezeout Hill Passing Lanes, will require additional ROW and the impacts documented in a Categorical Exclusion (CE) prepared for that project are incorporated in this EA (figure 3). The Freezeout Hill Passing Lane CE is currently being updated to reflect modifications. All projects will occur in phases as part of Idaho 16 improvements. All discussions of affected area, impacts, and mitigation measures include these areas as well. The ultimate roadway configuration for Idaho 16 will not exceed four lanes.

**Idaho 16, Intersection Substation Road Near Emmett  
STP-3330(606), Key 8238, (Environmental Review and Permitting In Process)**

This project proposes to widen Idaho 16 near the Substation Road intersection to provide two travel lanes and a left-turn lane for the eastbound approach and one travel lane, a left-turn lane, and a right-turn lane for the westbound approach. East of the Substation Road intersection, two eastbound travel lanes and one westbound travel lane are provided. This project may be constructed in the summer of 2004. Minimal ROW was obtained to construct this project. It is currently programmed with 2004 funds and construction is expected to begin in 2004.

**Freezeout Hill Passing Lanes  
STP-3330(102), Key 8082, (NEPA Categorical Exclusion)**

Work on this project consists of widening Idaho 16 from MP 10.0 (Old Freezeout Hill Road) to MP 12.561 (Substation Road). The project purpose is to add a passing/climbing lane in each direction through the project limits and add an interchange at the intersection of Cherry Lane/Sand Hollow Road. Left-turn lanes will be added at the Freezeout Hill Overlook and at Old Freezeout Hill Road. The level of service will be raised to "A". The existing bridge at the Black Canyon Canal will be replaced. The existing shoulders will be widened to AASHTO Standards. In conjunction with the widening, the slopes will be no steeper than 1:1.6 and will be revegetated to reduce erosion and increase slope stability. From the Black Canyon Canal to the Substation Road intersection, an urban typical section is recommended. This was done to minimize the ROW impacts to the subdivision on the south side of the highway through this

area. If a rural typical section is used, it will require approximately 25 feet of ROW from properties on both sides of the highway through this area.

Also, it was determined that the pavement will need to be reconstructed. This will also facilitate reconstruction of the 7.6% superelevation to the standard 6.0% for the curve on the north end of the project.

Several alternatives were evaluated for the intersection of Cherry Lane/Sand Hollow Road including: closing the intersection, allowing right-in/right-out only, providing an overpass/underpass, or constructing an interchange. Through several public meetings held in conjunction with the Idaho 16 Corridor Study and through coordination with Gem County, it was determined that an interchange should be constructed at this intersection.

Additional ROW will be necessary to construct this project. This project is not currently programmed but is in predevelopment.

#### **Firebird Raceway Passing Lanes STP-3330(103), Key 8429, (NEPA Categorical Exclusion)**

The project proposes to build passing lanes on each side of the existing roadway. The northbound passing lane will begin just north of the Hillsdale Subdivision entrance (MP 3.75) and run north for approximately 1.2 miles. The southbound passing lane will begin at the end of the acceleration lane from Firebird Raceway (MP 5.15) and extend south approximately 1.4 miles to the Hillsdale Subdivision entrance. A CE has been approved for this project and the associated impacts are incorporated into this document. Additional ROW will not be obtained to construct this project. It is currently programmed with 2004 funds and construction is expected to begin in 2004.

#### **Freezeout Hill South Passing Lanes STP-3330(104), Key 8433**

This project is currently in the conceptual phase and a detailed description is not available. However, the project proposes to widen Idaho 16 from two lanes to four lanes and to tie into the Freezeout Hill Passing Lanes Project at MP 9.5. This project is the same footprint as proposed in the Idaho 16 project and therefore this EA quantifies this project's impacts. Additional ROW will not be obtained to construct this project. It is currently programmed with 2006 funds.

## **Construction Schedule and Project Phasing**

Construction of roadway improvements covered in this EA for the Idaho 16 Improvement study will occur after the four phases described earlier are completed and funding has been obtained. Identifying and acquiring the necessary ROW for the full corridor build-out is a primary objective of the Idaho 16 Improvement Study. Purchasing ROW within the 14-mile corridor is programmed to begin with 2005 funds and is projected to take up to 10 years.

# PURPOSE AND NEED

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## Purpose

The purpose of this project is to meet capacity and safety requirements on Idaho 16, from its intersection with SH 44 to SH 52 in Emmett, based on the projected 2030 traffic volumes, and to preserve Idaho 16 access and function as a principal arterial.

## Need

Improvements to Idaho 16 for highway safety and capacity are needed to:

- ♦ Bring Idaho 16 up to current standards
- ♦ Alleviate congestion by providing adequate capacity and level of service for 2030 traffic
- ♦ Evaluate existing and future accesses according to the current ITD Access Policy
- ♦ Consolidate existing accesses



# ALTERNATIVES TO THE PROPOSED ACTION

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## Alternatives Considered but Rejected

A primary goal of the Idaho 16 Improvement Study was corridor preservation. A “corridor” is defined as “the path of a transportation facility that already exists or may be built in the future.” The American Association of State Highway Transportation Officials defines corridor preservation as “a concept utilizing the coordinated application of various measures to obtain control of or otherwise protect the right-of-way for a planned transportation facility.” Some objectives of corridor preservation include: prevent inconsistent development; minimize or avoid environmental, social, and economic impacts from future transportation projects; reduce displacement; prevent the foreclosure of desirable location options; allow for the orderly assessment of impacts; permit orderly project development; reduce costs; and others. Alternatives not recommended for reasons pertaining to their excessive cost, insufficient operating speed, or inability to provide the required access control. These alternatives, which thus failed to meet the purpose and need of the project were not carried forward for environmental evaluation.

Initially, ITD evaluated two basic alternatives for the Idaho 16 corridor, each with two options, plus the No-Action Alternative. These alternatives are illustrated in figure 5 and were presented to the public in the Spring 2003 brochure. The brochure also invited the public to learn more about the alternatives and give comments at a public open house on Tuesday, April 8 at the Eagle Christian Church, 7695 W. State Street in Eagle from 4 to 8 p.m. Each preliminary alternative is described briefly below:

- ♦ **Alternative 1:** This alternative was designed to improve the existing Idaho 16 alignment to meet current standards. A four-lane section will be built from State Street to Substation Road to SH 52. The concept of this alternative was carried forward, however the following design options were eliminated.

**1A** will provide frontage<sup>1</sup> roads parallel to Idaho 16 from State Street to Jackass Gulch Road (figure 5). These frontage roads will run alongside Idaho 16 where the topography allows. Existing roads are used as frontage roads where possible. Most of the frontage road length will not be needed until development occurs. Developers are expected to pay much of the frontage road construction costs.

**1B** will provide backage roads parallel to Idaho 16 from State Street to Jackass Gulch Road. Existing roads and paths are used as backage roads when possible (figure 5). The backage roads are spaced a minimum of 660 feet from Idaho 16 unless the

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1. This document uses two specialized terms: frontage and backage roads. Frontage roads generally parallel the highway and deliver local traffic to limited controlled access points (intersections) on the highway. Frontage roads are typically within 100 feet or less of the highway. Backage roads are similar, but are farther away, behind potential future roadside development. On this project, backage roads extend as far away as 1,800 feet from the highway.



topography requires otherwise. Developers are expected to pay much of the backage road construction costs.

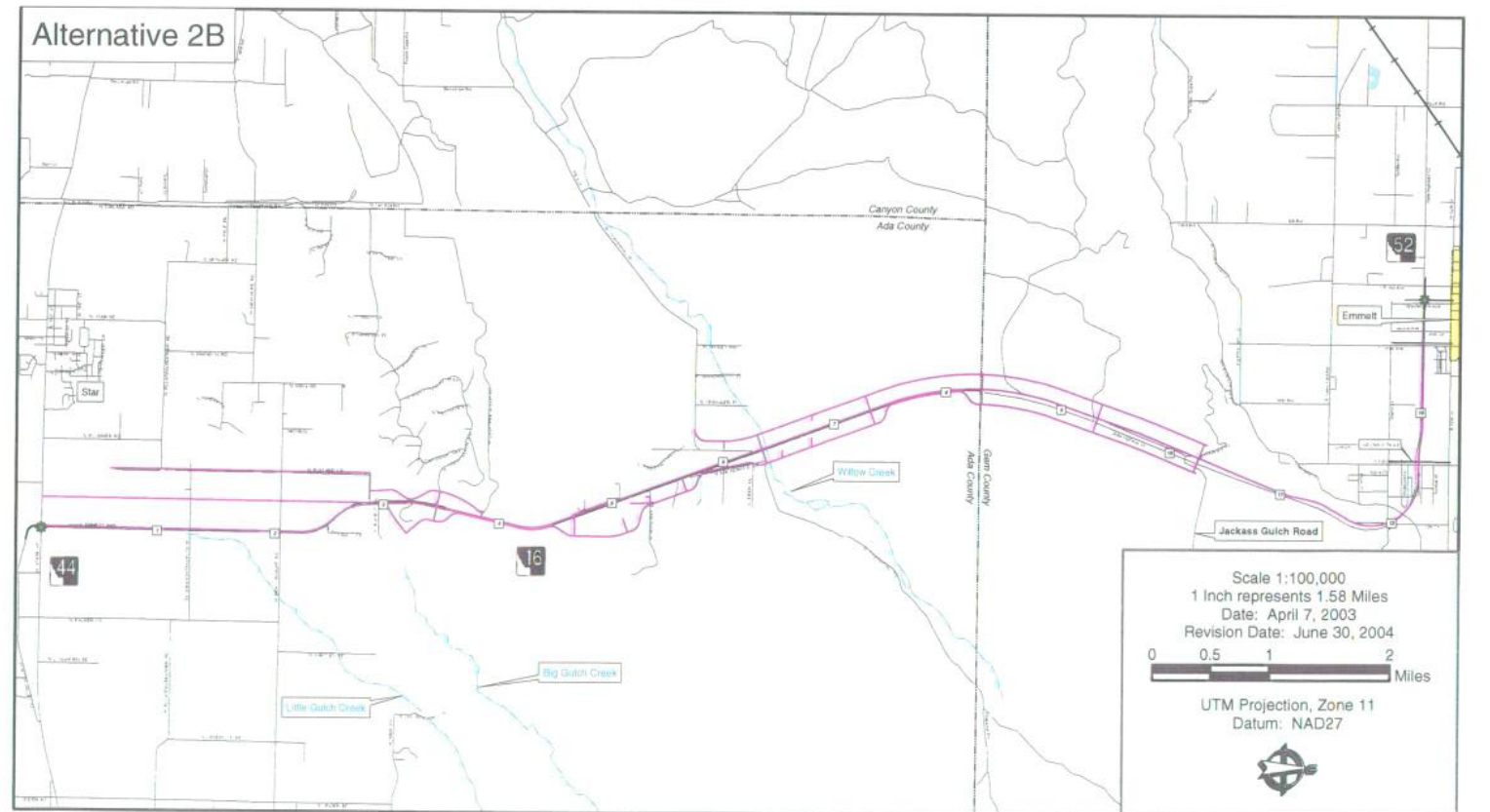
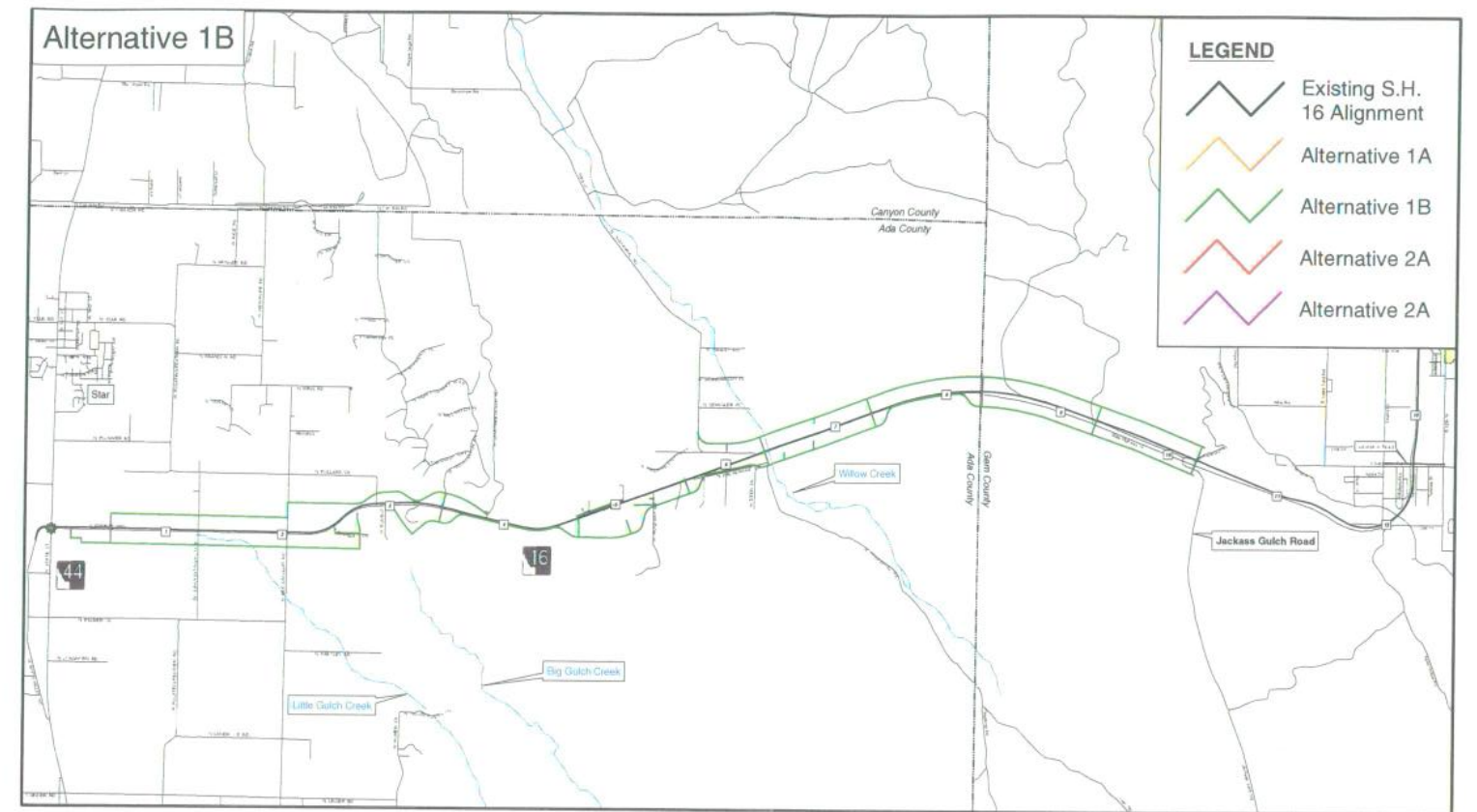
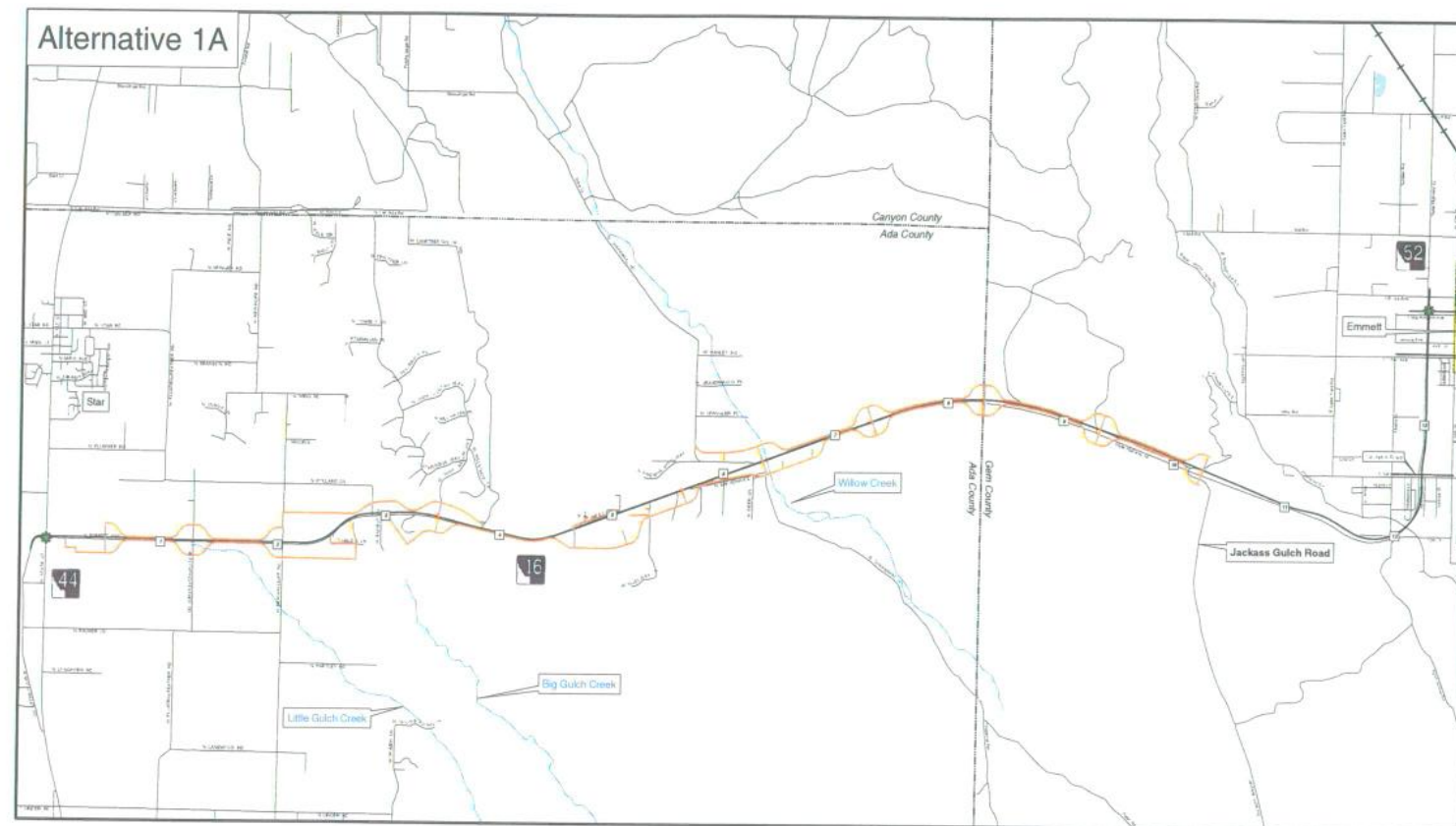
These design options were rejected because trying to keep the setback distances the same for a continuous frontage (Option 1A) or backage (Option 1B) road system produced environmental impacts associated with ROW required in areas where the option did not utilize existing county and local roads to minimize impacts. Such impacts were recognized in the area of farmland parcels being divided and large cuts and excavation associated with areas in rolling terrain. Also, these options limited opportunities to minimize impacts to wetlands and floodplains because of design constraints.

- ♦ **Alternative 2:** This alternative proposed a new Idaho 16 alignment from mile post (MP) 0.0 to approximately MP 3.5. From near MP 3.5, a new highway will run south to State Street about 0.25 mile west of the existing SH 44 intersection. This section will take out the curves on the southern end of Idaho 16 near MP 3.5. The current Idaho 16 will be used as a backage road to the east, while Pollard Lane will serve as a backage road on the west side of Idaho 16. Four lanes will be constructed from State Street to Substation Road and five lanes from Substation Road to SH 52.

**2A** will provide frontage roads parallel to Idaho 16 from State Street to Jackass Gulch Road (figure 5). These frontage roads will run alongside Idaho 16 where the topography allows and will use existing roads where possible. Most of the frontage road length will not be needed until development occurs. Developers are expected to pay much of the frontage road construction costs.

**2B** will provide backage roads parallel to Idaho 16 from State Street to Jackass Gulch Road (figure 5). Existing roads and paths will be used as backage roads when possible. The backage roads are spaced a minimum of 660 feet from Idaho 16 unless the topography requires otherwise. Most of the backage roads will not be needed until development occurs. Developers are expected to pay for much of the backage road construction costs.

This alternative and its design options were eliminated due to its greater environmental impacts to wetlands, historic structures, and farm parcels. The section of the alternative with the new alignment presented numerous problems for access to the existing Idaho Power substation. It also did not conform to the trends of land use modifications and area of impact changes in the southern portion of the corridor. Also, the community cohesion impacts voiced against this alternative from stakeholders indicated impacts would occur to future development in the path of this alternative and its design options.



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**Figure 5:**  
Project Location Map with the Alternatives 1A, 1B, 2A, and 2B  
Idaho 16 Improvement Study

## The Preferred Alternative

An important part of the screening process was public involvement (see the Public Involvement and Coordination section and Appendix D for details). To involve the public, ITD created a task force composed of individuals with interest and a stake in the project. Public meetings were also held to inform the public of the various alternatives and get feedback on concerns and support for the project. This process led to the development of the preferred alternative in response to comments and concerns expressed by the public regarding alternatives 1A, 1B, 2A, and 2B. Based on the input from the public, Alternative 1C was developed combining elements from both alternatives 1 and 2 (figure 3). Alternative 1C will follow the existing Idaho 16 highway alignment and will have a combination of frontage and backage roads.

Alternative 1C has these major differences from all other proposed alternatives:

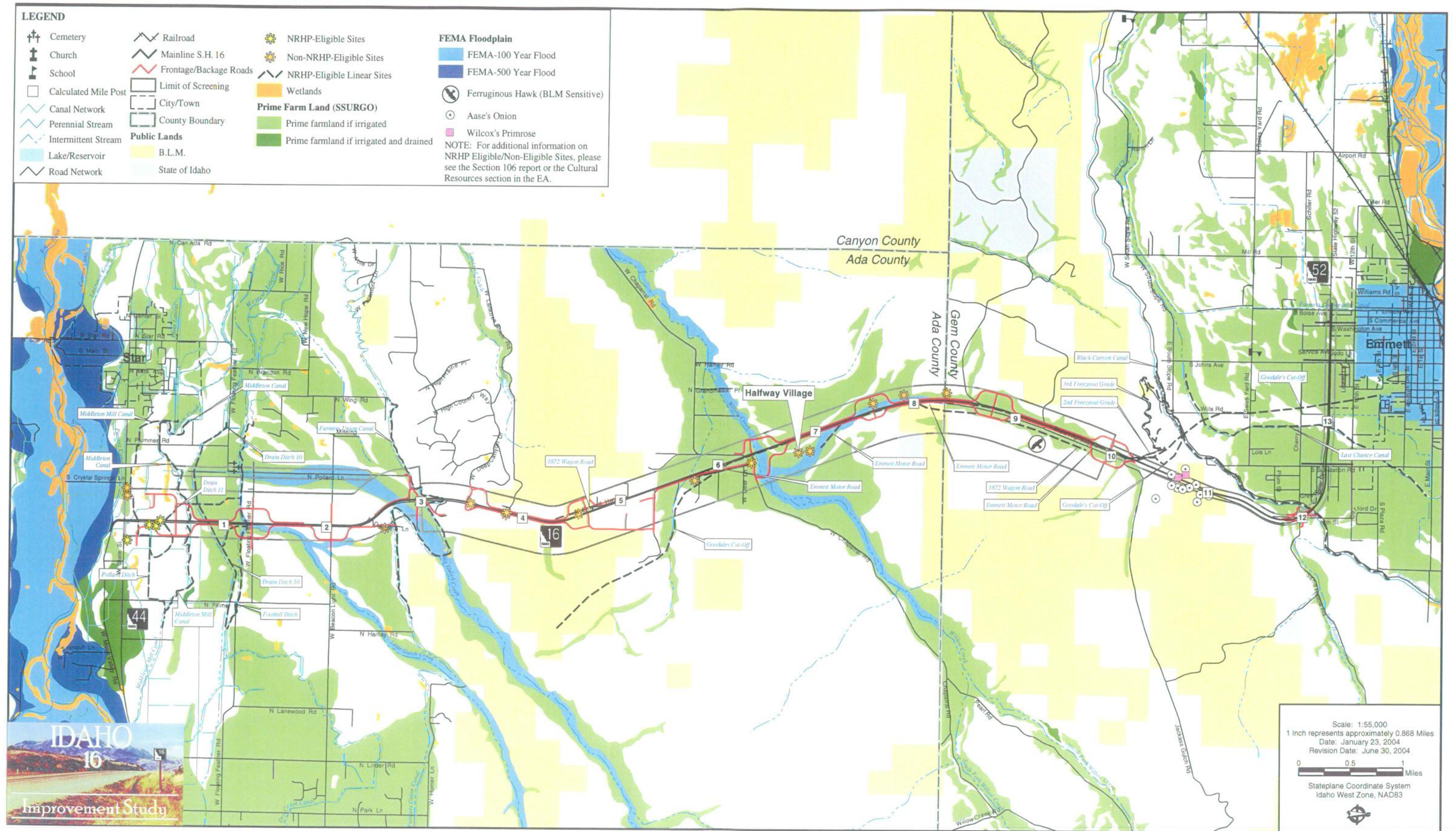
- Changes the Idaho 16 project to tie into a future SH 44 Corridor Plan
- Moves a frontage road to avoid affecting the golf course
- Redesigns the northeast Beacon Light frontage road to tie into Double S Lane
- Realigns Pollard Lane to line up with Equest Lane, creating a new access
- Reduces intersections between Chaparral Road and Jackass Gulch Road from 4 to 3
- Adjusts frontage/backage road design to avoid bisecting properties across from Firebird Raceway

Environmental resources and constraints evaluated for all alternatives during preliminary screening were presented to the public at the open houses. Elements considered included:

- |  |                                    |
|--|------------------------------------|
| • Wetlands   | • Recreational properties          |
| • Floodplains  | • Noise                            |
| • Farmlands  | • Water quality                    |
| • Properties historic canals eligible for the National Register of Historic Places | • Hazardous waste sites            |
| • Sensitive plant and animal species   | • Secondary and cumulative impacts |

Resources were identified within a 2,400-foot wide-band from MP 0.0 to MP 10.0 (figure 6). From MP 10.0 to the intersection of Washington Road, in Emmett, a 500-foot-wide band was surveyed. The screening corridor was established to allow alternatives to be shifted to avoid environmental resources and to minimize land use, farmland, and irrigation impacts. Inventory maps were produced using a Geographic Information System (GIS) to compare the alternatives. Environmental impacts were compared and summarized (Appendix A).





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**Figure 6:**  
 Alternative 1C with Environmental Resources  
 Idaho 16 Improvement Study



ITD selected Alternative 1C as the Preferred Alternative for the Idaho 16 Improvement Study based on transportation, safety, environmental considerations, and concerns raised during the public involvement process. The Preferred Alternative will best satisfy the overall purpose and need for the project. It will provide increased traffic capacity, reduce congestion, provide access control, improve level of service, and enhance public safety.

Based on the Environmental Screening evaluation, this is how the Preferred Alternative compares to the other alternatives considered:

- ♦ Meets the project's purpose and need.
- ♦ Land Use: Less impact to agricultural and residential properties.
- ♦ Economic: Fewer impacts to local businesses.
- ♦ Natural Environment – T& E Plants: Avoids direct impacts to T&E species and habitat and has the least impact on state sensitive species as well.
- ♦ Cultural Resources and Historic Properties: Avoids sites on or eligible for the NRHP

In summary, the Preferred Alternative divides the fewest farm parcels, has the least impact on NRHP resources, and has the least impact on wetlands. It also avoids impacts to endangered species. Although it has greater impacts on other resources, including floodplains, water quality, commercial properties, and acres of converted farmland, the ITD District Three Office, in Boise, has concluded that this alternative best satisfies the purpose and need of the project, even though some environmental trade-offs will be required.

As described above, ITD has completed a screening analysis of action alternatives in compliance with NEPA. This EA for the Idaho 16 Corridor Study carries forward one action alternative, alternative 1C, as the Preferred Alternative for more detailed review. This EA also considers the No-Action Alternative solely for comparison purposes, since it would not meet the project's purpose and need. Following review of this EA, ITD and the Federal Highway Administration (FHWA) will adopt a preferred alternative and make a commitment to mitigate impacts to the environment. Following review of this EA, FHWA will decide whether or not to issue a Finding of No Significant Impact.

## No-Action Alternative

Under the No-Action Alternative, Idaho 16 will remain a two-lane facility with roadway width and clear zone distances that do not meet AASHTO standards. The insufficient highway capacity and uncontrolled access will remain unchanged.

## Traffic

Under the No-Action Alternative Level of Service (LOS) E is predicted for all segments of Idaho 16 in 2030. Increased traffic congestion will result in increased travel times, associated economic impacts, and a likely increase in traffic accidents.

## *Air Quality*

Under the No-Action Alternative, increased traffic congestion will lead to increased concentrations of carbon monoxide, PM10 and PM2.5, hydrocarbons and NO<sub>2</sub>, especially during the November to March period when temperature inversions are most common.

## *Noise*

Under the No-Action Alternative, noise impacts will be minimal, resulting from maintenance or possible repairs to the existing roadway. Without widening or other improvements, 2030 noise levels will exceed the FHWA Noise Abatement Criteria of 66 dBA at 36 residences, and 71 dBA at 5 commercial/industrial properties during peak-hour traffic conditions. The No Action Alternative will affect only one less residence than the Preferred Alternative.

## *Geology/Soils*

Under the No-Action Alternative, clearing, grading, or other land-disturbing activities will not occur, and, therefore, no impacts will occur.

## *Wetlands*

Under the No-Action Alternative, road construction will not occur, therefore no impacts to wetlands will occur.

## *Waterways/Water Quality*

Under the No-Action Alternative, road construction will not occur, therefore no impacts to waterways or water quality will occur.

## *Vegetation, Wildlife, and Threatened & Endangered Species*

Under the No-Action Alternative, road construction will not occur and vegetation and wildlife will not be affected. Mammals and birds crossing the roadway corridor may be killed or injured as per existing conditions.

## *Land Use*

Under the No-Action Alternative, residents in the project area will find it increasingly difficult to access their property as traffic congestion increases. Developers may delay or reduce the scale of new land development projects, or may choose to develop in other locations where better transportation access is provided. These impacts could have spin-off economic impacts on local developers and landowners. Land values and associated tax revenues could decline with overall adverse impacts to the local and regional economy.

## ***Farmland and Irrigation***

Under the No-Action Alternative, farmers will find it increasingly difficult to cross Idaho 16 due to increasing congestion. Transportation costs associated with farming enterprises may increase, with potential adverse economic impacts. With potential delays, reductions in scale, or relocation of land development projects, farm families planning on income from land sales/conversions may be adversely impacted.

## ***Displacements/Relocations***

Under the No-Action Alternative, displacements or relocations will not occur.

## ***Environmental Justice***

Under the No-Action Alternative, minority or low-income populations will not be affected.

## ***Cultural Resources***

Under the No-Action Alternative, properties on or eligible for the National Register of Historic Places will not be affected.

## ***Hazardous Materials***

Under the No-Action Alternative, ground-disturbing activities will not occur and the potential hazardous wastes at the Emmett Chevron at the corner of Idaho 16 and South Washington Avenue will not be affected.

## ***Visual Quality***

Construction-related visual quality impacts would be limited to any maintenance operations and would be small in scale compared to those related to constructing the Preferred Alternative.

# IMPACTS OF THE PROPOSED ACTION

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This section summarizes the environmental analyses conducted for this Environmental Assessment (EA). The resource areas studied for the EA are consistent with the National Environmental Policy Act (NEPA) and implementing regulations, as well as ITD and Federal Highway Administration (FHWA) guidelines. The analyses for most resources considered a 2,400-foot-wide band from MP 0.0 to MP 10.0 and a 500-foot-wide band from MP 10.0 to the intersection of Washington Road, in Emmett. However, the analysis area does vary for some resources. For example, when observing economic conditions, it is useful to look at Gem County in its entirety. As described in the section on alternatives, many public workshops were held to refine the project alternatives. This process resulted in selection of the proposed action (preferred alternative), which is discussed in detail in this section. This section discusses each resource and its current condition and describes the impacts of the Proposed Action. Impacts describe both those during construction and those from the operation of the project. Impacts during construction are both temporary and permanent. These result from clearing, grading, constructing new frontage and backage roads, and modifying existing sections of the alignment as proposed by this action. Impacts during operation are those after construction has occurred and sections of Idaho 16 are modified with additional lanes and frontage and backage roads. Potential impacts during operation would be increased traffic noise or additional runoff from new impervious surfaces. To identify and quantify impacts, conceptual-level plans were used to convert the planning-level project description into a three-dimensional template. This level of detail was needed to be able to understand the potential impacts of the Proposed Action. Efforts were made to minimize right-of-way impacts and encroachment into wetlands, historic structures, and floodplains. The engineers and designers took environmental constraints into account throughout the design process looking first to avoid the impact, second minimize the impact, and third provide mitigation for the impact. It is anticipated that additional opportunities for impact minimization will be available in the process of taking the preliminary plans to the more detailed level of actual engineering plans for construction. Therefore, the magnitude of project impacts described in this section is expected to be a "worst-case" scenario. Appropriate mitigation has been identified to address these impacts.

## Traffic and Level of Service

### *Studies and Coordination*

Existing and proposed traffic conditions in the Idaho 16 corridor are known from data collected by ITD, COMPASS (Community Planning Association of Southwest Idaho), and the design team. Traffic forecasts for 2025 were provided by COMPASS and adapted to develop 2030 forecasts by applying a 2.9 percent growth rate (WIS 2003).



## *Methodology*

### **Existing AADT and Turning Movement Counts**

The daily counts were used as base year AADT data by applying a seasonal factor to the collected volumes. The ITD Planning Division supplied the seasonal factor. In addition, the design team requested additional traffic data outputs from the Regional COMPASS model. The goal was to determine if the widening of Idaho 16 also compels widening SH 44. The COMPASS regional model was used to review various scenarios of alternatively widening one corridor or the other and evaluating the impact of each one. The COMPASS model runs were also used to determine any changes in local travel patterns linked with widening Idaho 16.

Highway Capacity Software version 4.1c was used to develop level of service at the intersections and for the segments of Idaho 16.

### **Design Year 2030**

ITD determined the design year as two years from the program year for construction plus 20 years. This designated 2030 as the design year. The COMPASS model can only forecast traffic to the year 2025. A 2.9% growth rate was used to forecast traffic from 2025 to the year 2030. This rate is based on the 2001 and 2025 COMPASS model projections. Turning movement percentages were calculated using the existing count intersection directional data.

## *Affected Environment*

Between SH 44 and SH 52, Idaho 16 is a rural principal arterial. Existing travel patterns on Idaho 16 are characterized as a commuting route between Emmett and Boise as well as servicing pockets of rural and agricultural development along the 14-mile corridor. Several local, collector, and minor arterial east-west roadways within the project corridor are used to move traffic from the surrounding areas onto Idaho 16. Generally, the project corridor experiences moderate to heavy commuting traffic volumes with destinations to regional employment centers in Ada County.

A major concern voiced by many citizens is the amount of traffic originating outside Ada County and its effect on congestion and transportation needs in Ada County. In 1990, non-Ada County residents contributed only 9 percent of the total work trips for Ada County.

Access control is a tool that can be used to control future development along highways and local roads. The ITD board has the legislative power to direct the purchase access rights to the connecting roadways. Idaho 16 generally has two travel lanes and a typical section that varies from 28 to 32 feet in width. Existing direct access will be incorporated as improvements are built. Temporary access will be allowed in the interim; however, these accesses will be realigned as part of future programmed projects.

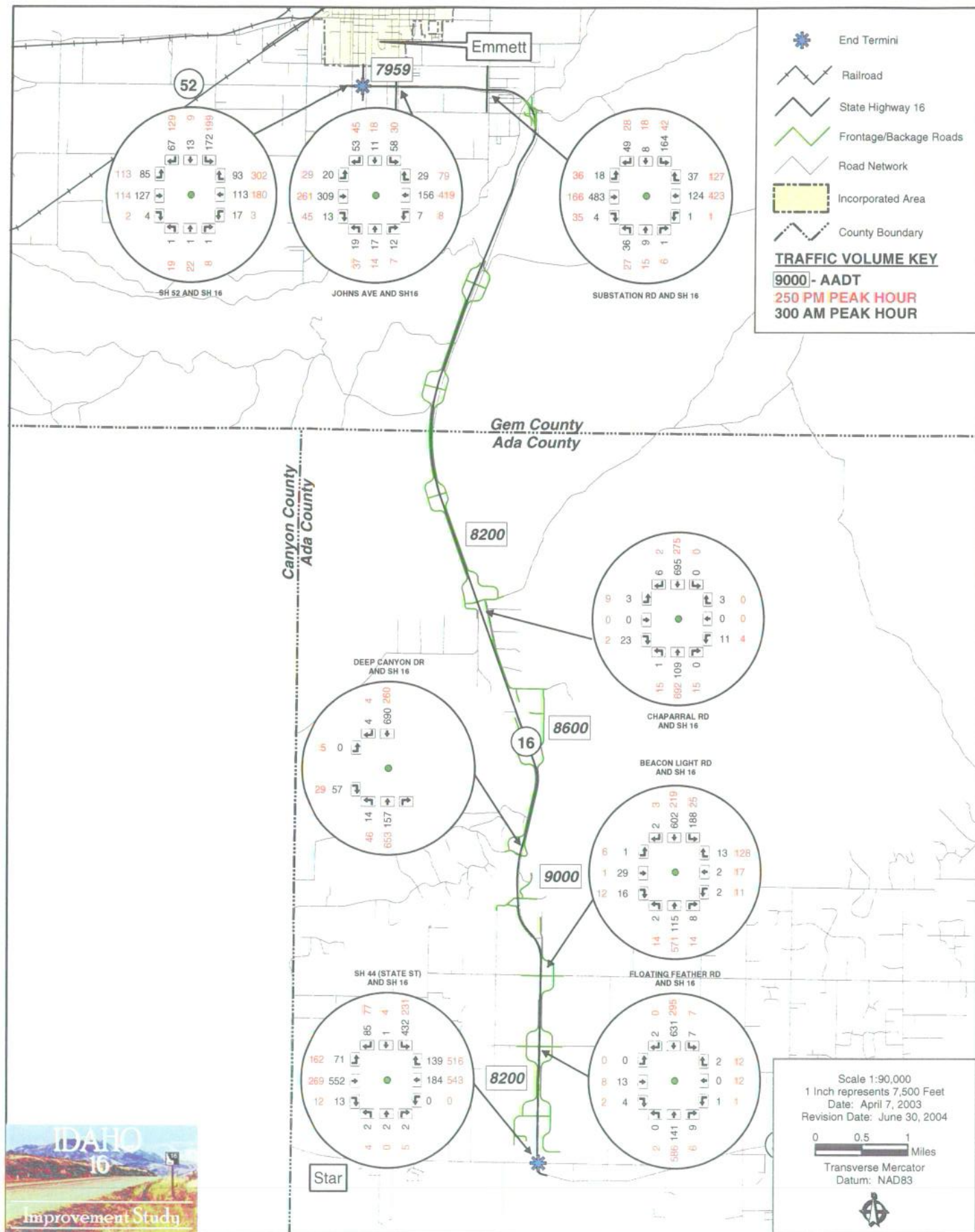
## Road System

The road system in the site vicinity is described below:

- ♦ Idaho 16 is a north-south, two-lane facility that is classified as rural principal arterial between SH 44 and SH 52. Idaho 16 is posted for a speed limit of 65 mph between SH 44 and MP 10 (Roadway to Pearl), 55 mph from MP 10 to Substation Road, and 50 mph from Substation Road to SH 52. Only the intersections with SH 44 and SH 52 are controlled by signals.
- ♦ At the intersection of SH 44, Idaho 16 has both left-turn and right-turn lanes.
- ♦ At the intersection with Substation Rd., Idaho 16 approaches have a left-turn lane, a through lane, and a right-turn lane.
- ♦ At the SH 52 intersection, the east and west approaches of Idaho 16 have a left-turn lane and a through lane. Also, the westbound approach of Idaho 16 has a right-turn lane.
- ♦ SH 44 is an east-west, three-lane principal arterial in the vicinity of Idaho 16. At the intersection with Idaho 16, east and west approaches of SH 44 have a left-turn and two through lanes. Also, the westbound approach of SH 44 has a free right-turn lane.
- ♦ Floating Feather Road is classified as a collector road east of Idaho 16. Floating Feather Road has one lane approaches at its intersection with Idaho 16.
- ♦ Beacon Light Road east of Idaho 16 is a minor arterial road. West of the highway, Beacon Light Road is classified as a section line road (future arterial). East and west approaches of Beacon Light Road have a left-turn lane and through lane.
- ♦ The east and west approaches of Chaparral Road are separated by approximately 100 feet. West of the highway, Chaparral Road is classified as a collector road. Chaparral Road has one lane approaches at the intersection with Idaho 16.
- ♦ Substation Road is a local road. Substation Road has a left-turn lane, through lane, and a right-turn lane the intersection with Idaho 16.

## Traffic and Level of Service

Traffic volumes for 2002 (figure 7) were based on counts performed in 2002. In 2002, the average daily traffic volumes ranged from 7,950 to 9,000 vehicles per day along the corridor. The most current traffic counts available as of July 2004 ranged from 7,700 to 9,300 vehicles per day. The projected traffic volumes using Year 2002 counts, ranged from 8,200 to 9,200 vehicles per day. Comparing the most current traffic counts with 2002 counts, projected volumes indicate the traffic volumes used for preparing this document are reasonable.



**Figure 7:**  
 2002 Traffic Volumes

Idaho 16 Improvement Study

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Volumes for 2005 were developed to evaluate how quickly the traffic was changing over the course of the study from 2002 to 2004. Figure 7A provides these projected volumes. The 2005 volumes show that the corridor is projected to increase 800 AADT over 2002 volumes; this growth is in line with the overall projection of traffic volumes for 2030. This demonstrates that 2005 projected volumes are representative of the growth rates assumed in this study. Using the 2005 projected traffic volumes would not change the conclusions contained in this document; however, these volumes provide a confidence factor that the analysis has not become dated during the study time frame.

Year 2030 traffic forecasts (figure 8) were prepared based on extrapolating forecasts prepared by COMPASS. Average daily traffic volumes predicted for 2030 range from 15,700 to 18,100 vehicles per day with peak-hour volumes as high as 1,593 vehicles per hour at the Idaho 16/Chaparral Road intersection.

Table 1 presents future (2030) levels of service (LOS)<sup>2</sup> for various roadway segments and intersections with and without the proposed Idaho 16 improvements. According to ITD's Traffic Survey and Analysis Section, roadway segments and intersections are required to operate at LOS D or better. Under future 2030 conditions with the project, roadway segments will operate at LOS B and all signalized intersections will operate at LOS D or better, with the exception of two non-signalized intersections (table 1). These unsignalized intersections will operate at LOS F, until such time (beyond 2030) that traffic levels warrant installing signals at these locations. Intersection configurations for these two locations were recommended in the traffic analysis (WIS 2002).

## *Impacts During Construction*

A very important factor that will influence which segments of the improvement project are built and when is directly linked to local land use decisions governed by the land use plans of the cities of Star, Eagle, and Emmett. Advance ROW preservation is likely to occur in areas that have not yet been developed. However, programmed project for construction is not tied to the ROW acquisition. Without the knowledge of which segments will be constructed, this analysis looks at the construction impacts to traffic, LOS, and travel patterns as those that would occur to any constructed segment that would be programmed.

Temporary impacts will vary from location to location. Impacts will include traffic detours and increases in noise, dust, and traffic congestion during construction. During construction, travel times will increase due to traffic detours and vehicle delays, particularly at new intersections because of lane reductions used to provide work zones. Businesses near Emmett will most likely see a reduction in parking areas and access limitations due to construction within the ROW. These disruptions will most likely make the project area less appealing and reduce business activity for local merchants, especially in and near Emmett.

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2. Level of Service (LOS) is a traffic engineering term that relates the degree of traffic congestion to a letter code system. For example, LOS A represents optimal traffic operations under free-flowing conditions, while LOS F reflects heavy congestion and long delays at intersections.

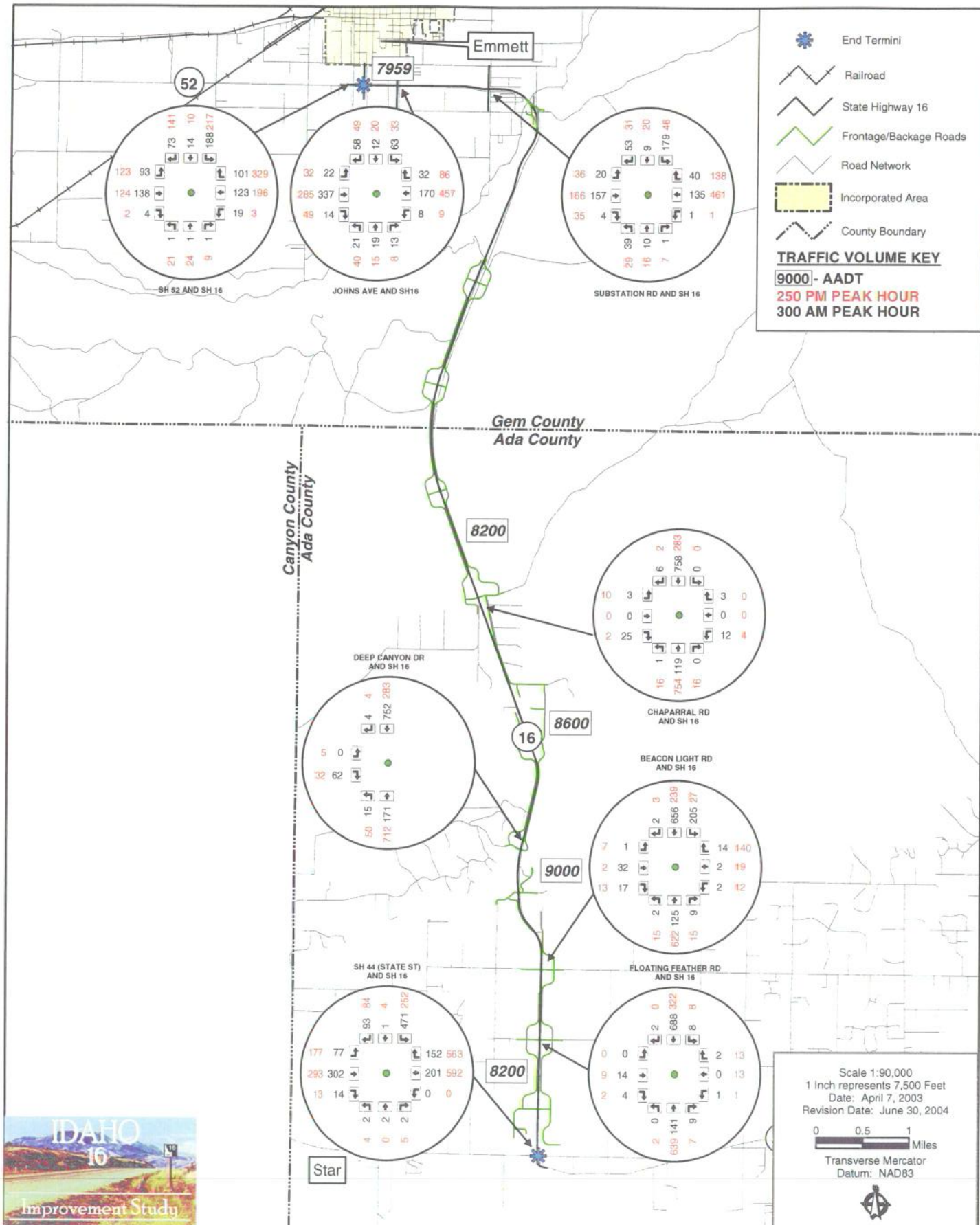
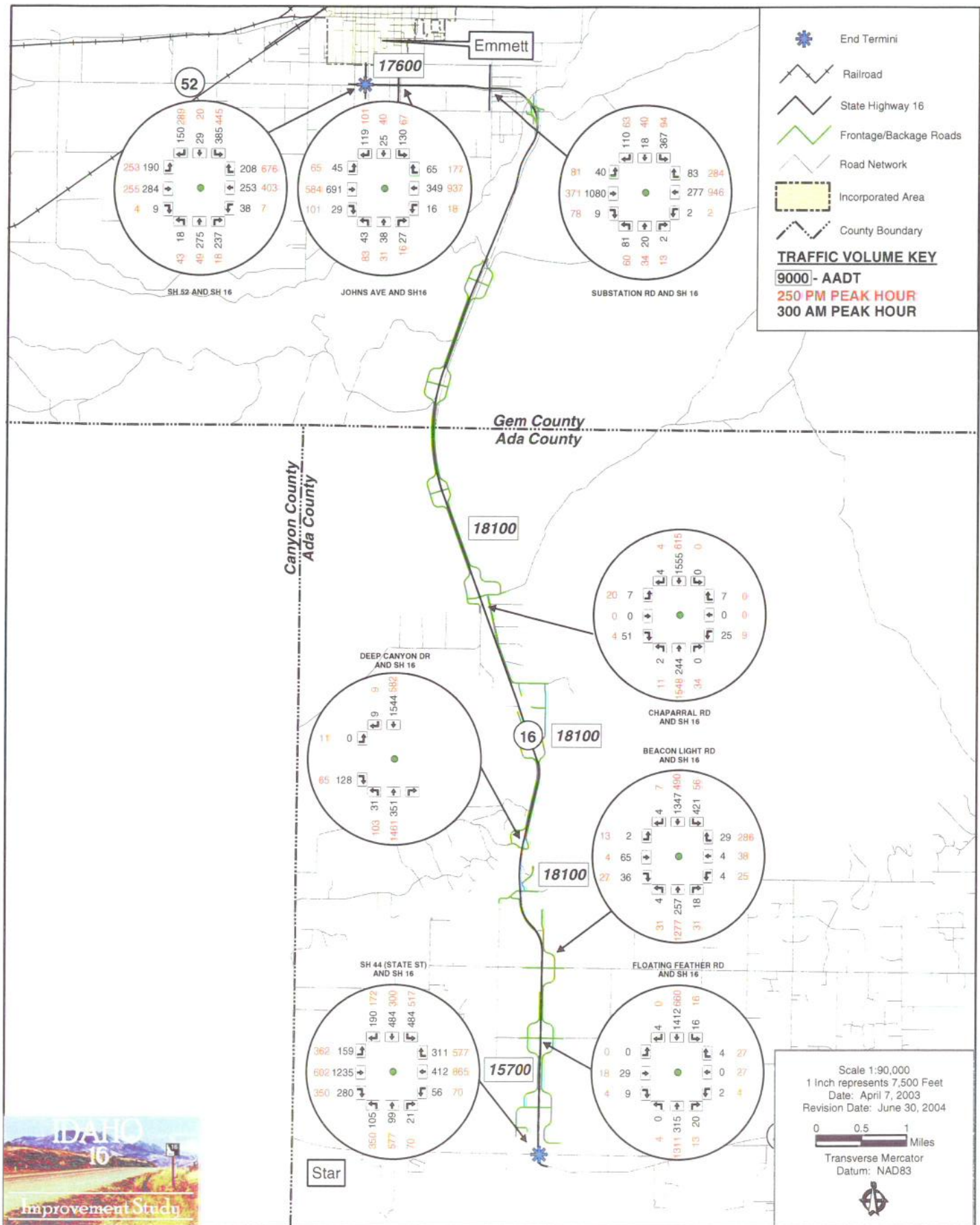


Figure 7A:  
2005 Projected Traffic Volumes

Idaho 16 Improvement Study





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**Figure 8:**  
**2030 Projected Traffic Volumes**

*Idaho 16 Improvement Study*

**Table 1**  
**Predicted Future (2030) Levels of Service (LOS) for Various Roadway Segments and Intersections With and Without Proposed Improvements.**

Location	Existing LOS		2030 LOS With the Project		2030 LOS Without the Project	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
<b>Roadway Segments of Idaho 16</b>						
SH 44 to Beacon Light Road	C	C	B	B	D	D
Beacon Light Road to the Ada County Line	D	D	B	B	E	E
Ada County Line to Substation Road	D	D	B	B	E	E
Substation Road to SH 52	D	D	B	B	E	E
<b>Intersections</b>						
Idaho 16/SH 44 Intersection	D	C	D <sup>1</sup>	D <sup>1</sup>	F	F
Idaho 16/Floating Feather Road <sup>2</sup>	C	C	F	F	F	F
Idaho 16/Beacon Light Road	E	D	C <sup>1</sup>	C <sup>1</sup>	F	F
Idaho 16/Deep Canyon Drive <sup>2</sup>	C	C	C	C	F	E
Idaho 16/Chaparral Road <sup>2</sup>	C	C	D	F	F	F
Idaho 16/Substation Road	C	C	D <sup>1</sup>	C <sup>1</sup>	F	E
Idaho 16/John Avenue	C	E	C <sup>1</sup>	C <sup>1</sup>	E	F
Idaho 16/SH 52 Intersection	E	D	D <sup>1</sup>	D <sup>1</sup>	F	F
<sup>1</sup> . Traffic signal provides LOS D or better. <sup>2</sup> . Not signalized as traffic signal warrant requirements not met – LOS based on a stop-controlled intersection, and reflects the worst movement at the intersection, typically left-turning traffic.						

## Impacts During Operation

The COMPASS regional model was used to review various scenarios of alternatively widening one corridor or the other and evaluating the impact of each one. These scenarios are described below:

- ♦ **Widening Idaho 16 to four lanes, SH 44 remains a two-lane roadway.** Under this condition, SH 44 traffic increases slightly, but increases less than 500 vehicles per day (vpd). Traffic increases only at the southern end of the SH 44 Corridor. It appears that some traffic is diverted from Chaparral Road to Idaho 16/SH 44. Widening Idaho 16 does not adversely affect traffic operations on SH 44.
- ♦ **Widening SH 44 to 4 lanes, Idaho 16 remains a two-lane roadway.** SH 44 traffic volumes increase by nearly 40%, indicating that widening SH 44 will attract traffic from other corridors. The volumes on Idaho 16 are not affected by widening SH 44. These data support the concept that the two roadways have independent utility.
- ♦ **Widening both Idaho 16 and SH 44 to 4 lanes.** In this scenario, forecast traffic volumes increased in both corridors. The SH 44 increase is regional, as traffic is

attracted from parallel corridors. The increase for Idaho 16 is minor. It appears that traffic is diverted from Chaparral Road to Idaho 16/SH 44. These data also support the concept that the two roadways have independent utility.

The COMPASS model runs were also used to determine changes in local travel patterns linked with widening Idaho 16. The data show travel patterns change very little due to widening Idaho 16 from 2 to four lanes. With Idaho 16 widened, SH 44 traffic increases slightly (e.g., less than 500 vpd) both west and east of Idaho 16. A decrease in traffic on Chaparral Road between Idaho 16 and the Star area balances this slight increase to the west. The rest of the arterial street system experiences only very minor changes (e.g., less than 200 vpd).

All modeling efforts indicate only minor changes will occur in local traffic patterns due to widening Idaho 16. The modeling also shows that widening either Idaho 16 or SH 44 alone does not appear to require a corresponding widening of the other roadway.

The Preferred Alternative will not likely impact the total population of the study area. Improvements to the Idaho 16 Corridor could influence safety and LOS in the following manner:

- ♦ Improve safety by providing additional lanes and passing opportunities as the project phases are built. Notable accident reduction is anticipated with a four-lane configuration because a continuous passing lane and separate turn lanes will be provided at the intersections. Between January 2001 and December 2003, 125 accidents were reported. Of these accidents, 22 were attributed to turning movement conflicts at intersection locations and 53 accidents were intersection related. Proposed turn bays will enhance safety by providing a refuge area for turning movements out of the stream of through traffic. Also, of the 125 accidents, 4 were attributed to "Improper Overtaking" and 17 were attributed to "Following too Close."
- ♦ LOS along Idaho 16 generally improves from E to B and at the intersections from F to D in 2030 compared to not building the project (table 1). According to the ITD Design Manual Appendix A, State Design Standards for Non-PHS, the lowest LOS for rolling terrain is LOS D. The intersections that warrant signals based on peak-hour volumes and the Idaho 16 between intersections achieve LOS D or better. ITD has therefore determined that the proposed LOS D meets the established LOS criteria. The two intersections that are below the LOS D threshold, as shown in table 1, did not meet the peak-hour volume signal warrant and were analyzed as stop controlled intersections. However, Idaho 16 will operate above the LOS D threshold. The minor access streets will tend to have a lower LOS at stop controlled intersections than the threshold of LOS D. These stop controlled intersections should be re-analyzed for signal warrants as development occurs.

## Air Quality

### *Studies and Coordination*

Potentially adverse air quality impacts for this project are associated with carbon monoxide (CO) and particulate matter less than 10 microns in diameter (PM<sub>10</sub>) (Idaho Department of



Environmental Quality (IDEA) 2001). To quantify air quality impacts from CO, information about the roadway geometry (existing and proposed), traffic volumes and velocities, traffic signals, and vehicle characteristics was gathered and evaluated. Other relevant information collected included CO background data from air pollutant monitoring sites and other data needed by the air quality models (WIS 2003).

Traffic data as shown in figures 7, 7A, and 8 were obtained from *Technical Memorandum 1 of the Idaho 16 Improvement Study Concept Report* (WIS 2003). Calculated intersection LOS, peak-hour traffic volumes, turning movements, and other parameters were available for all intersections along the Idaho 16 corridor. Roadway geometry was based on preliminary design.

## Methodology

### *Carbon Monoxide*

Intersections along the project corridor were ranked according to traffic volumes and LOS. The intersections with the highest traffic volumes and/or worst LOS were selected for analysis: Idaho 16 and SH 44, Idaho 16 and Substation Rd, Idaho 16 and South Johns, and Idaho 16 and SH 52.

Air quality modeling used MOBILE—the latest version of the U.S. Environmental Protection Agency (EPA) Mobile Source Emission Factor Model—and CAL3QHC Version 2.0—an EPA-approved line-source air pollutant dispersion model. Modeled values were determined for 1-hour and 8-hour average periods for comparison with the CO National Ambient Air Quality Standards (NAAQS).

Background CO concentrations for the project area were determined for each year modeled. The initial 2002 background CO concentrations were obtained from the ITD publication *Project Level Air Quality Screening, Analysis, and Documentation for Roadway Projects in Idaho* (IDEQ 2001).

### *PM<sub>10</sub> Method*

Due to the current uncertain regulatory environment in Ada County, a project-level analysis was presented voluntarily for PM<sub>10</sub>. On past projects, IDEQ has suggested a proportional analysis approach for PM<sub>10</sub>. In this approach, vehicle miles traveled (VMT) for the project area are compared to the total VMT for the Ada and Gem Counties planning areas. VMT is used as a surrogate for PM<sub>10</sub> emissions since they are directly related to vehicle operation.

PM<sub>2.5</sub> concentrations were not predicted as part of the air quality analysis for the project.

## Affected Environment

The EPA and IDEQ regulate air quality in the project area. Under the Federal Clean Air Act, EPA established the NAAQS, which are health-based standards specifying maximum concentrations for CO, PM<sub>10</sub>, PM less than 2.5 microns in diameter (PM<sub>2.5</sub>), ozone, sulfur

dioxide, lead, and nitrogen oxides (NOx). Idaho has adopted these standards. Currently, IDEQ regulates CO and PM<sub>10</sub> on transportation projects (table 2 and IDEQ 2001).

<b>Table 2</b> <b>Summary of Applicable Ambient Air Quality Standards</b>			
Pollutant	National Primary Standard	National Secondary Standard	Idaho State Standard
Carbon Monoxide (CO)			
1-hour average	35 ppm	None	35 ppm
8-hour average	9 ppm	None	9 ppm
Particulate (PM <sub>10</sub> )			
Annual Arithmetic Mean	50 µg/m <sup>3</sup>	50 µg/m <sup>3</sup>	50 µg/m <sup>3</sup>
24-hour Average	150 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>
Particulate (PM <sub>2.5</sub> )			
Annual Arithmetic Mean	15 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>
24-hour Average	65 µg/m <sup>3</sup>	65 µg/m <sup>3</sup>	65 µg/m <sup>3</sup>
Sources: 40 CFR Part 50 (1988); <a href="http://www.epa.gov/airs/criteria.html">http://www.epa.gov/airs/criteria.html</a> ; 1998 Idaho Administrative Code Section 16.01.01 ppm = parts per million; µg/m <sup>3</sup> = micrograms per cubic meter of air			

In 1979, Ada County was designated a “Not Classified Non-Attainment Area”. This designation indicates that the county is a geographical region that has violated the NAAQS for CO. On December 27, 2002 EPA designated ADA County as an “attainment” area and placed northern ADA County under a limited maintenance plan. Part of the Idaho 16 project is within this area. Local CO concentrations from vehicular traffic were assessed using dispersion modeling for relevant intersections in the project area as part of a conformity determination (WIS 2003). Idaho 16 is entirely in an attainment area for ozone and a PM<sub>2.5</sub> designation will be announced in December 2004.

Based on the CO air quality analysis, no existing receptor sites in the project area experience concentrations in excess of the current 1-hour or 8-hour NAAQS.

Prior to 1999, Ada County was also designated a non-attainment area for PM<sub>10</sub>; however, no violation has been recorded since 1991. In March 1999, EPA revoked Ada County’s pre-existing PM<sub>10</sub> standards and its associated designation. The ruling was challenged in court and settled in 2001. Ada County is subject to the statewide PM<sub>10</sub> standards established by IDEQ. Until the PM<sub>10</sub> Maintenance Plan is completed, local agencies must reduce PM<sub>10</sub> emissions through a variety of control measures (COMPASS 2003).

In addition, a finer resolution of the particulate standard has been developed—PM<sub>2.5</sub>. Sources of PM<sub>2.5</sub> include smoke from burning, industrial operations, agricultural operations, industrial and agricultural cleaning fluids, fuels, and exhaust from gasoline and diesel operations (IDEQ 2004). In the late 1990s, IDEQ began monitoring PM<sub>2.5</sub> and has since recorded violations in Ada County.

In response, IDEQ has developed the *Wintertime Air Pollution Response Plan* (IDEQ 2004). The plan is primarily in effect from November 1 through March 31. During this period, IDEQ monitors CO, PM<sub>10</sub>, and PM<sub>2.5</sub> on a daily basis and posts air quality advisories on their web site—green, yellow, and red. During yellow conditions, citizens are requested to avoid outdoor burning and limit driving to help reduce air pollution in Treasure Valley. During red conditions, citizens are required to avoid outdoor burning and use of woodstoves, minimize commercial and industrial operations that generate air pollutants, and strictly limit driving. The plan presents alternatives to driving including teleconferencing, flex-time commuting schedules, and telecommuting.

## *Impacts During Construction*

A variety of construction activities, if not properly mitigated, will temporarily generate PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, and CO. Fugitive dust could escape from the construction site and from trucks carrying materials. This particulate matter could be carried by the wind to nearby residences. Vehicles leaving the site could deposit mud on public streets, which will become a source of dust after it dries. PM<sub>2.5</sub>, CO, and NO<sub>x</sub> also will be emitted from construction equipment exhaust. These emissions will occur over the course of the construction period, which will occur intermittently over 5 to 10 years.

CO, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions will contribute to existing air quality problems in Treasure Valley and may contribute to increased frequencies of wintertime air pollution advisories.

## *Impacts During Operation*

### *Carbon Monoxide*

CO levels for 2030 were modeled at four intersections. The modeling indicates that CO concentrations will be much lower than the standards for all intersections (table 3).

Based on the analysis, no receptor sites are forecast to experience concentrations exceeding the current 1-hour or 8-hour NAAQS. It can therefore be concluded that the project will have no adverse impact on air quality as a result of CO emissions.

<p><b>Table 3</b> <b>Summary of 2030 CO Model Predictions</b></p>		
Modeled Intersections	CO Standards	
	1-Hour Standard 35 ppm	8-Hour Standard 9 ppm
Idaho 16/SH 44 Intersection	5.22	3.65
Idaho 16/Substation Road	3.82	2.67
Idaho 16/South Johns	3.92	2.74
Idaho 16/SH 52 Intersection	4.22	2.95

### *PM10 and PM2.5*

Along the corridor, project VMT represents only 1.7 percent of total VMT for the combined areas of Ada and Gem counties (WIS 2003). Because PM10 emissions are directly related to VMT, the project will contribute an insignificant fraction of the region's VMT and will have little impact on PM10 levels. Project VMT to regional VMT is estimated to remain constant from 2002 to 2030.

Also, forecasts indicate that vehicle generated PM10 emissions will be reduced by 2030. The model estimates a 56% reduction, from 0.071 in 2002 to 0.031 in 2030. As northern Ada County has not had a recorded PM10 violation in over a decade and PM10 vehicle emissions are expected to be reduced, concentrations will be expected to be less than the NAAQS (table 2). However, it should be noted that particulate impacts from the roadway will include wind-blown suspension of vehicle-dirt and residual material remaining on the highways after winter sanding operations. These sources will add to the PM10 emissions addressed here.

Although PM2.5 has not been predicted as part of this air quality analysis, concentrations will be expected to remain similar to 2030. This is because increased emissions from higher traffic volumes will be offset by reduced emissions due to advances in pollution control as new cars replace older cars. However, vehicles traveling on Idaho 16 will likely continue to contribute to PM2.5 air quality violations in the Treasure Valley.

According to EPA (2002), non-attainment areas for ozone will be designated in 2004 and for PM2.5 in 2004 to 2005. States will be given 3 to 4 years to update their State Implementation Plans to address these new NAAQS. Since the Idaho 16 project is not scheduled for construction until 2010, air quality conformity with any new Non-Attainment Area designation will need to be addressed in a future supplemental air quality assessment.

## Noise

### *Studies and Coordination*

Traffic data, topography, and roadway geometry were obtained (WIS 2002). Monitoring of existing noise levels and identification and location of noise prediction points was performed (Entranco 2003a).

### *Methodology*

Projected noise levels (energy equivalent level or  $L_{eq}$ ) were estimated for 2030 using the Federal Highway Administration (FHWA) approved Traffic Noise Model 2.1 (TNM 2.1). The model defines vehicle noise source characteristics by speed-dependent reference noise emission levels and vehicle density by vehicle type. The model uses three-dimensional roadway segment geometry. The program considers characteristics of the path of noise transmitted between the source and the noise receiver by including intervening barriers, topography, vegetation, and atmospheric absorption. The rate at which traffic noise from a highway will naturally attenuate is dependent on two factors. The distance from the source and the type of ground over which the sound is traveling. The ground along Idaho 16 is considered a soft surface and the rate at which sound will decrease is estimated to be approximately 4.5 dB for each doubling of distance from the source.

The model predicted noise levels for existing p.m. peak hour (highest traffic noise), 2030 Preferred Alternative p.m. peak, and 2030 No-Action Alternative p.m. peak. A sensitivity analysis was performed between a.m. and p.m. peak volumes, and p.m. peak volumes were determined to be the louder. Modeling included the Idaho 16 mainline but did not include cross streets, or frontage or backage roads. Traffic volumes and associated noise on the frontage and backage roads were not considered the dominate source of noise for nearby homes. The volumes for these segments cannot be determined until development places vehicles on the roadway. Existing land uses identified a total of 66 noise prediction points: 60 residences and 6 commercial properties.

Table 4 summarizes the peak-hour traffic counts (WIS 2002). The daily counts were used as base year average daily traffic data by applying a seasonal factor to the collected volumes supplied by ITD's Transportation Planning Division.

Table 5 also shows the vehicle percentages assumed for the model. These assumptions were based on traffic counts, previous studies, and ITD data.

An operating speed of 65 mph was used to analyze existing and future conditions. This speed was chosen because observed speeds exceeded posted speeds.

Shielding factors were not considered for any receivers.

To ensure predicted sound levels were as accurate as possible, noise was measured at representative receivers and these values were used to calibrate the computer model.

**Table 4**  
**2002 Predicted Traffic Volumes on the Idaho 16**

Vehicle Type	Vehicle Mix %		P.M. Peak Volume		A.M. Peak Volume	
	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
<b>Segment near Substation (648+00-757+00)</b>						
Total Vehicles			478	343	226	405
Autos	89	89	425	305	201	360
Medium Trucks	7	7	32	23	15	27
Heavy Trucks	4	4	21	15	10	18
<b>Segment from Firebird to Chaparral (299+00-349+00)</b>						
Total Vehicles			658	281	157	729
Autos	73	73	480	205	115	532
Medium Trucks	21	21	138	59	33	153
Heavy Trucks	6	6	39	17	9	44
<b>Segment from Beacon Light to Deep Canyon (120+00-193+00)</b>						
Total Vehicles			705	289	129	747
Autos	73	73	515	211	94	545
Medium Trucks	21	21	148	61	27	157
Heavy Trucks	6	6	42	17	8	45
<b>Segment from State Street to Floating Feather (11+00-66+00)</b>						
Total Vehicles			678	298	212	636
Autos	95	73	644	218	201	464
Medium Trucks	2	21	11	63	3	134
Heavy Trucks	4	6	25	18	8	38

**Table 5**  
**2030 Predicted Traffic Volumes on the Idaho 16**

Vehicle Type	Vehicle Mix %		P.M. Peak Volume		A.M. Peak Volume	
	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
<b>Segment near Substation (648+00-757+00)</b>						
Total Vehicles			1568	478	258	1449
Autos	89	89	1396	425	230	1290
Medium Trucks	7	7	104	32	17	96
Heavy Trucks	4	4	68	21	11	63
<b>Segment from Firebird to Chaparral (299+00-349+00)</b>						
Total Vehicles			1472	628	351	1631
Autos	73	73	1075	458	256	1191
Medium Trucks	21	21	309	132	74	343
Heavy Trucks	6	6	88	38	21	98
<b>Segment from Beacon Light to Deep Canyon (120+00-193+00)</b>						
Total Vehicles			1567	647	288	1672
Autos	73	73	1144	472	210	1221
Medium Trucks	21	21	329	136	60	351
Heavy Trucks	6	6	94	39	17	100
<b>Segment from State Street to Floating Feather (11+00-66+00)</b>						
Total Vehicles			1516	668	569	1423
Autos	95	73	1440	488	541	1039
Medium Trucks	2	21	24	140	9	299
Heavy Trucks	4	6	55	40	21	85



## Affected Environment

Land use in the project area consists of rural residential, suburban residential, commercial, and agricultural uses. Commercial and suburban residential uses occur near Emmett north of Cherry Lane/Sand Hollow Road. Land uses to the south are rural residential, agricultural, and open space resource lands. Traffic is the dominant noise source along Idaho 16, although farm machinery, lawn mowers, weed trimmers, and aircraft may contribute to the noise environment depending on time and location. The highest noise levels occur during the p.m. peak traffic period from 5:00 to 6:30 p.m. Other factors affecting existing traffic noise levels include traffic speed, the distance from the vehicle, vehicle mix (trucks are noisier than cars), grade (traffic makes more noise as engines work harder going uphill), and natural or manmade barriers such as topography and walls, which may decrease the noise reaching a receiver.

Table 6 shows noise levels for different activities. These levels are in decibels (dB) that are weighted to mimic how the human ear perceives sound (dBA). As indicated, highway traffic noise is expected to be about 60 dBA at a distance of 150 feet.

<b>Table 6</b> <b>Common Sound Levels in dBA</b>			
Common Outdoor Sounds	Sound Pressure Level (dBA)	Common Indoor Sounds	Subjective Evaluation
Auto horn at 10 feet	100	Printing plant	Deafening
Jackhammer at 50 feet			
Gas lawn mower at 4 feet	90	Auditorium during applause	Very Loud
Pneumatic drill at 50 feet		Food blender at 3 feet	
Concrete mixer at 50 feet	80	Telephone ringing at 8 feet	
Jet flyover at 5,000 feet		Vacuum cleaner at 5 feet	
Large dog barking at 50 feet	70	Electric shaver at 1 foot	Loud
Large transformer at 50 feet			
Automobile at 55 mph at 150 feet	60	Normal conversation at 3 feet	
Urban residential			
	50	Office noise	
Small town residence			Moderate
	40	Soft stereo music in residence	
		Library	
	30	Average bedroom at night	Faint
Rustling leaves		Soft whisper at 3 feet	
Quiet rural nighttime	20	Broadcast and recording studio	
	10	Human breathing	Very Faint
	0	Threshold of hearing (audibility)	

The FHWA has established Noise Abatement Criteria (NAC) for different activity categories (table 7). Category B (applies to residential properties) has a NAC of 67 dBA, while Category C (applies to commercial properties) has a NAC of 72 dBA. ITD has adopted the approach

criteria of 1 dBA less than the NAC criteria for implementing noise mitigation. Also, increases of 15 dBA over existing conditions warrant mitigation.

Existing noise levels were monitored at 7 residential properties along Idaho 16. Also, FHWA's Traffic Noise Model, was used to predict noise levels at 66 properties along the corridor (60 residential and 6 commercial). Noise modeling indicated that existing noise levels were higher than FHWA criteria at 28 locations (26 residential and 2 commercial).

**Table 7**  
**Federal Highway Administration Noise Abatement Criteria**

Activity Category	Hourly Leq Noise Levels (dBA)	Description of Activity Category
A	57 (exterior)	lands on which serenity and quiet are of extraordinary significance and serve an important public need, and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose
B	67 (exterior)	picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals
C	72 (exterior)	developed lands, properties, or activities not included in Categories A or B above
D	--	undeveloped lands
E	52 (interior)	residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums

Source: 23 CFR 772.

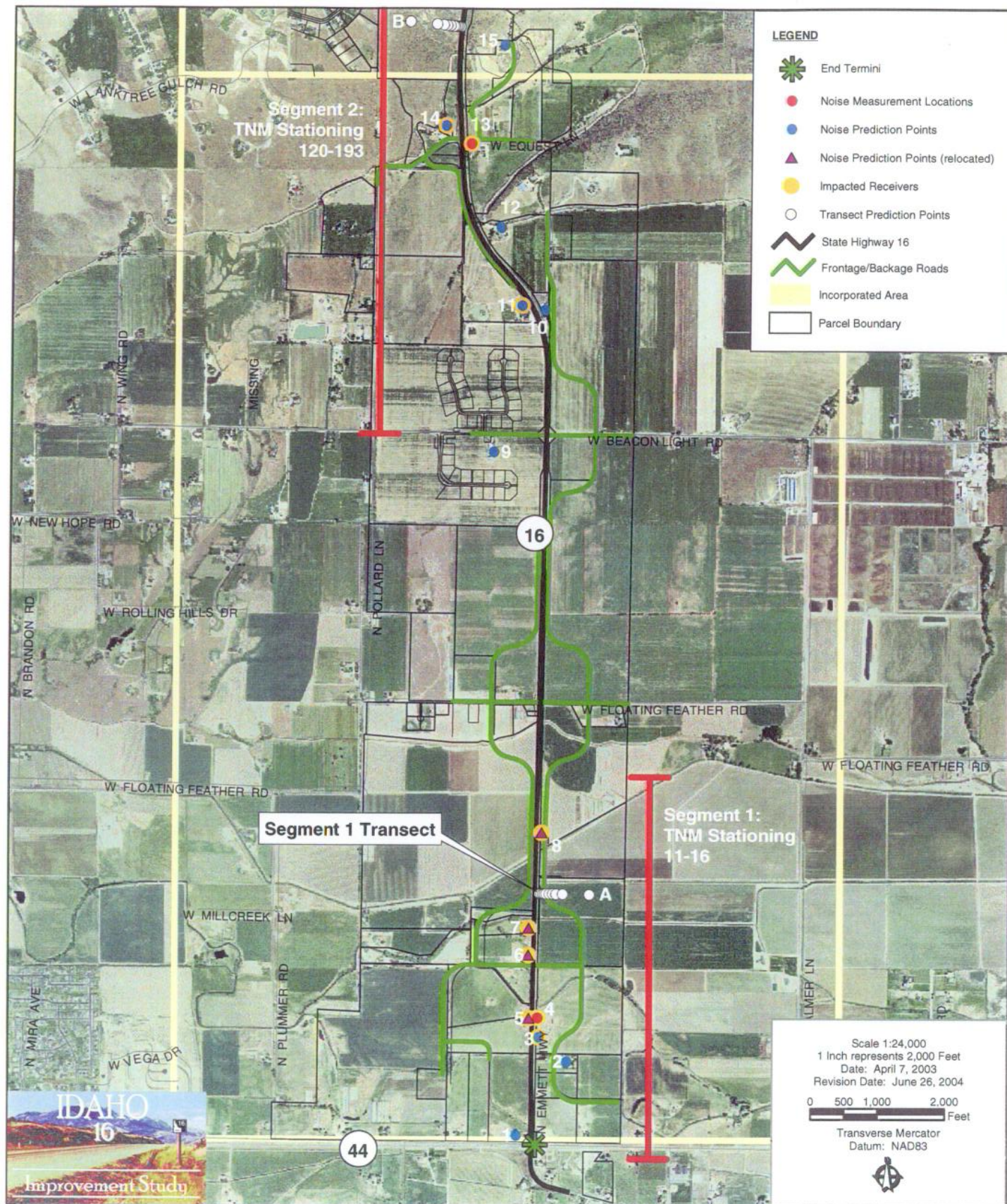
## Impacts During Construction

While regular traffic highway noise may range from 65 to 75 dBA, construction noise levels may range as high as 90 to 110 dBA. For example, a heavy dump truck may produce noise levels of 90 dBA at a distance of 50 feet, and a jack-hammer or pile driver may produce sound levels up to 100 dBA at 50 feet. Equipment likely to be used to construct Idaho 16 include bulldozers, scrapers, graders, rollers, front end loaders, large dump trucks, concrete trucks, backhoes, trackhoes, paving machines, jackhammers, concrete and pavement saws, and pile-driving equipment. Construction is likely to occur intermittently over 5 to 10 years depending on funding availability and other factors. Residential and commercial properties closest to the highway will experience the highest noise levels during construction.

## Impacts During Operation

Impacted receivers are illustrated in figures 9, 10, and 11. Table 8 shows the 2030 analysis results. Of the properties along Idaho 16, 28 residences and 4 commercial/industrial properties have predicted noise levels exceeding the FHWA NAC. Relocated residential and commercial properties are not considered impacted as they will not exist when the project is built. The ITD noise policy states that approaching the FHWA NAC (1 dBA below the NAC) is an "absolute" noise impact and requires consideration of mitigation. Therefore the NACs that apply are 66 and 71 dBA for categories B and C respectively (table 7).



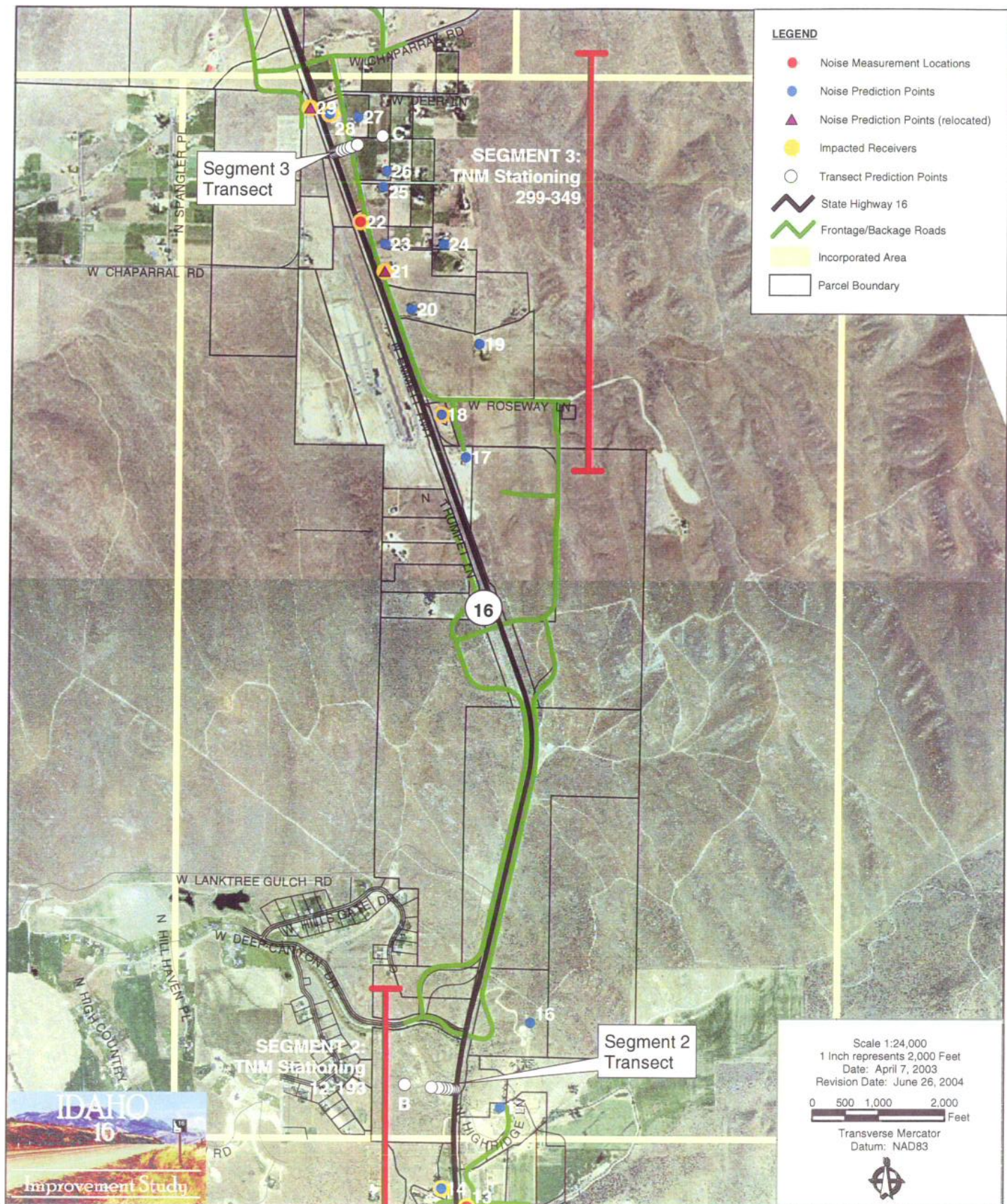


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This MAP is based on information from numerous sources and the accuracy of which is not guaranteed by the Idaho Transportation Department. The Idaho Transportation Department is not responsible and shall not be liable to the user for damages of any kind arising from the data or information shown of this map.

**Figure 9:**  
**Noise Impacted Receivers**  
*Idaho 16 Improvement Study*





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**Figure 10:**  
**Noise Impacted Receivers**  
*Idaho 16 Improvement Study*



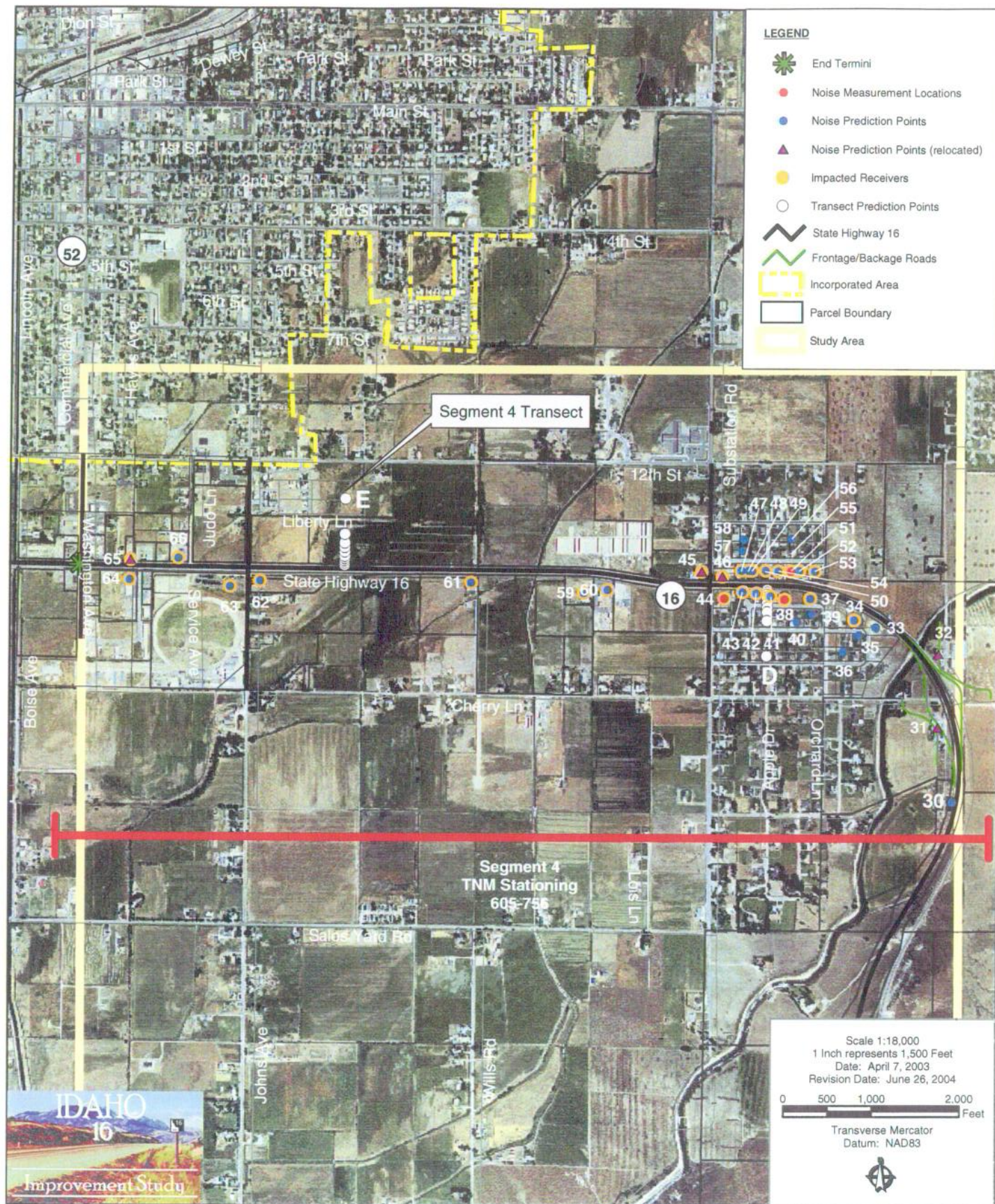


Figure 11:  
Noise Impacted Receivers  
Idaho 16 Improvement Study

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**Table 8**  
**Predicted Loudest Hour  $L_{eq}$**

Location	Existing $L_{eq}$	2030 Predicted Noise Levels (dBA)			Distance from Centerline
		No Build $L_{eq}$	Build $L_{eq}$	Difference between Build and No Build	
Receiver 1	62	65	65	0	224
Receiver 2	54	58	58	0	493
Receiver 3 <sup>1</sup>	70	<b>74</b>	<b>73</b>	-1	67
Receiver 4	<b>72</b>	<b>76</b>	<b>75</b>	-1	79
Receiver 5 <sup>2</sup>	71	<b>75</b>	<b>73</b>	-2	60
Receiver 6 <sup>2</sup>	70	<b>73</b>	<b>71</b>	-2	73
Receiver 7 <sup>2</sup>	<b>69</b>	<b>73</b>	<b>71</b>	-2	127
Receiver 8 <sup>2</sup>	70	<b>74</b>	<b>74</b>	0	70
Receiver 9	51	51	56	5	796
Receiver 10 <sup>1</sup>	67	69	70	1	183
Receiver 11 <sup>1</sup>	<b>73</b>	<b>74</b>	<b>72</b>	-2	113
Receiver 12	62	63	64	1	372
Receiver 13 <sup>3</sup>	<b>70</b>	<b>66</b>	<b>67</b>	1	114
Receiver 14	65	<b>67</b>	<b>68</b>	1	285
Receiver 15	54	58	58	0	251
Receiver 16	50	52	54	2	1,068
Receiver 17	59	64	63	-1	280
Receiver 18	62	<b>67</b>	<b>67</b>	0	240
Receiver 19	48	51	53	2	715
Receiver 20	61	64	64	0	329
Receiver 21 <sup>2</sup>	<b>66</b>	<b>70</b>	<b>70</b>	0	178
Receiver 22	<b>75</b>	<b>78</b>	<b>74</b>	-4	66
Receiver 23	61	64	64	0	229
Receiver 24	50	52	54	2	1,372
Receiver 25	56	59	60	1	527
Receiver 26	54	57	58	1	728
Receiver 27	59	60	60	0	610
Receiver 28	<b>68</b>	<b>70</b>	<b>70</b>	0	124
Receiver 29 <sup>2</sup>	<b>73</b>	<b>76</b>	<b>73</b>	-3	76

Note: Receivers may represent more than one property.

- Commercial or industrial property (non residential)
  - Rows shaded in gray represent that the receiver may be displaced by project construction.
  - Distance from the centerline for Receiver 13 changes from 114 under existing conditions to 124 feet under 2030 with the project. All other receivers are at the same distance from the centerline under both conditions.
  - All distances for transects are measured from the centerline
- Bold = Exceeds the FHWA guideline or approaches impacts per ITD guidelines for category B (66 dBA) and category C (71 dBA).  
Underlined and italicized numbers represent the minimum set back required to remain under 66 dBA.



Table 8 (continued)  
Predicted Loudest Hour  $L_{eq}$

Location	Existing $L_{eq}$	2030 Predicted Noise Levels (dBA)			Distance from Centerline
		No Build $L_{eq}$	Build $L_{eq}$	Difference between Build and No Build	
Receiver 30	41	45	65	15	145
Receiver 31 <sup>2</sup>	47	51	60	9	202
Receiver 32 <sup>2</sup>	58	63	65	2	194
Receiver 33	64	<b>67</b>	<b>67</b>	0	124
Receiver 34	63	<b>67</b>	<b>67</b>	0	183
Receiver 35	60	64	64	0	385
Receiver 36	56	61	60	-1	582
Receiver 37	<b>69</b>	<b>73</b>	<b>72</b>	-1	105
Receiver 38	<b>67</b>	<b>71</b>	<b>69</b>	-2	144
Receiver 39	62	<b>66</b>	65	-1	266
Receiver 40	58	63	63	0	434
Receiver 41	<b>69</b>	<b>74</b>	<b>72</b>	-2	108
Receiver 42	71	<b>75</b>	<b>76</b>	1	85
Receiver 43	<b>72</b>	<b>77</b>	<b>77</b>	0	83
Receiver 44	<b>66</b>	<b>70</b>	<b>71</b>	1	148
Receiver 45 <sup>2</sup>	<b>67</b>	<b>70</b>	<b>73</b>	3	165
Receiver 46 <sup>2</sup>	<b>70</b>	<b>74</b>	<b>77</b>	3	95
Receiver 47	<b>66</b>	<b>69</b>	<b>70</b>	1	134
Receiver 48	<b>66</b>	<b>69</b>	<b>70</b>	1	164
Receiver 49	<b>66</b>	<b>70</b>	<b>70</b>	0	161
Receiver 50	<b>66</b>	<b>69</b>	<b>69</b>	0	163
Receiver 51	64	<b>67</b>	<b>68</b>	1	152
Receiver 52	62	<b>66</b>	<b>68</b>	2	169
Receiver 53	61	65	<b>66</b>	1	182
Receiver 54	61	65	<b>66</b>	1	209
Receiver 55	58	61	62	1	378
Receiver 56	55	58	59	1	532
Receiver 57	61	63	63	0	364
Receiver 58	57	60	60	0	553

Note: Receivers may represent more than one property.

1. Commercial or industrial property (non residential)
2. Rows shaded in gray represent that the receiver may be displaced by project construction.
3. Distance from the centerline for Receiver 13 changes from 114 under existing conditions to 124 feet under 2030 with the project. All other receivers are at the same distance from the centerline under both conditions.
4. All distances for transects are measured from the centerline

Bold = Exceeds the FHWA guideline or approaches impacts per ITD guidelines for category B (66 dBA) and category C (71 dBA).

Underlined and italicized numbers represent the minimum set back required to remain under 66 dBA.

Table 8 (continued)  
Predicted Loudest Hour  $L_{eq}$

Location	Existing $L_{eq}$	2030 Predicted Noise Levels (dBA)			Distance from Centerline
		No Build $L_{eq}$	Build $L_{eq}$	Difference between Build and No Build	
Receiver 59	63	67	68	1	203
Receiver 60	66	70	70	0	188
Receiver 61	69	73	73	0	132
Receiver 62	68	72	72	0	136
Receiver 63	64	68	68	0	166
Receiver 64 <sup>1</sup>	69	73	72	-1	157
Receiver 65 <sup>1,2</sup>	71	75	76	1	70
Receiver 66 <sup>1</sup>	70	73	73	0	98
Transect A – 50' <sup>4</sup>	72	75	75	0	50
Transect A – 75'	70	74	73	-1	75
Transect A – 100'	69	72	72	0	100
Transect A – 125'	66	70	72	2	125
Transect A – 150'	65	68	70	2	150
Transect A – 200'	62	66	67	1	200
<u>Transect A – 250'</u>	60	64	<u>66</u>	2	250
Transect A – 300'	59	63	65	2	300
Transect A – 400'	56	60	63	3	400
Transect A – 800'	50	53	58	5	800
Transect B – 50'	72	76	74	-2	50
Transect B – 75'	71	74	73	-1	75
Transect B – 100'	69	72	71	-1	100
Transect B – 125'	68	71	70	-1	125
Transect B – 150'	67	70	69	-1	150
Transect B – 200'	65	68	69	1	200
Transect B – 250'	65	69	68	-1	250
Transect B – 300'	64	67	68	1	300
<u>Transect B – 400'</u>	62	65	<u>66</u>	1	400
Transect B – 800'	55	59	60	1	800

Note: Receivers may represent more than one property.

- Commercial or industrial property (non residential)
  - Rows shaded in gray represent that the receiver may be displaced by project construction.
  - Distance from the centerline for Receiver 13 changes from 114 under existing conditions to 124 feet under 2030 with the project. All other receivers are at the same distance from the centerline under both conditions.
  - All distances for transects are measured from the centerline
- Bold = Exceeds the FHWA guideline or approaches impacts per ITD guidelines for category B (66 dBA) and category C (71 dBA).  
Underlined and italicized numbers represent the minimum set back required to remain under 66 dBA.

**Table 8 (continued)**  
**Predicted Loudest Hour L<sub>eq</sub>**

Location	Existing L <sub>eq</sub>	2030 Predicted Noise Levels (dBA)			Distance from Centerline
		No Build L <sub>eq</sub>	Build L <sub>eq</sub>	Difference between Build and No Build	
Transect C – 50'	74	77	78	1	50
Transect C – 75'	71	75	75	0	75
Transect C – 100'	70	73	73	0	100
Transect C – 125'	68	72	71	-1	125
Transect C – 150'	67	70	70	0	150
Transect C – 200'	65	68	67	-1	200
<u>Transect C – 250'</u>	64	67	<u>66</u>	-1	250
Transect C – 300'	62	65	64	-1	300
Transect C – 400'	59	62	62	0	400
Transect C – 800'	52	56	56	0	800
Transect D – 50'	72	76	76	0	50
Transect D – 75'	69	73	73	0	75
Transect D – 100'	68	73	71	-2	100
Transect D – 125'	68	72	70	-2	125
Transect D – 150'	66	71	69	-2	150
Transect D – 200'	64	69	67	-2	200
<u>Transect D – 250'</u>	63	67	<u>65</u>	-2	250
Transect D – 300'	61	65	64	-1	300
Transect D – 400'	58	63	63	0	400
Transect D – 800'	51	56	59	3	800
Transect E – 50'	72	76	77	1	50
Transect E – 75'	69	73	74	1	75
Transect E – 100'	67	71	72	1	100
Transect E – 125'	66	69	70	1	125
Transect E – 150'	64	68	68	0	150
<u>Transect E – 200'</u>	62	66	<u>66</u>	0	200
Transect E – 250'	61	64	64	0	250
Transect E – 300'	59	62	63	1	300
Transect E – 400'	56	60	61	1	400
Transect E – 800'	51	54	55	1	800

Note: Receivers may represent more than one property.

1. Commercial or industrial property (non residential)
2. Rows shaded in gray represent that the receiver may be displaced by project construction.
3. Distance from the centerline for Receiver 13 changes from 114 under existing conditions to 124 feet under 2030 with the project. All other receivers are at the same distance from the centerline under both conditions.
4. All distances for transects are measured from the centerline

Bold = Exceeds the FHWA guideline or approaches impacts per ITD guidelines for category B (66 dBA) and category C (71 dBA).

Underlined and italicized numbers represent the minimum set back required to remain under 66 dBA.

Transect analysis (second half of table 8 following receiver 66) indicates that new residential dwellings will have to be built a minimum of 250 feet from the roadway to avoid adverse noise impacts.

## *Mitigation Considered for Impacted Receivers by Segment*

The most common noise abatement measure for mitigation would be constructing noise barriers (earth berms or noise walls). Each impacted receiver was reviewed to determine the feasibility of constructing either type of noise barrier and whether the measure met the reasonableness criterion. Field reconnaissance was used in part to make these determinations. A discussion is presented below.

### **Segment One**

The Preferred Alternative would affect only one residential receiver and one commercial receiver in this segment. Noise barriers were eliminated from further consideration at receivers 3 and 4 because they are isolated receivers and they did not meet the criterion for reasonable cost of abatement. A noise barrier would have a per residence cost of: \$105,600 for receiver 3 and \$105,600 for receiver 4.

A ten-point transect in this segment indicates a minimum setback of 250 feet from center line to remain outside the FHWA guideline of 66 dBA during the peak hour for traffic noise.

### **Segment Two**

The Preferred Alternative would affect two sensitive receivers in this segment. Noise barriers were eliminated from further consideration at affected receivers 13 and 14 because they are isolated receivers and they did not meet the criterion for reasonable cost of abatement. These receivers are 200 and 114 feet from center line, and a barrier high enough to protect meet the FHWA guideline, is not reasonable due to cost. The cost of the noise barriers at receivers 13 and 14 is \$912,000.

A ten-point transect in this segment indicates a minimum setback of 400 feet from center line to remain outside the FHWA guideline of 66 dBA during the peak traffic noise hour. However, this segment has varying topography and those set backs can be reduced where the ground breaks the line of sight to the receiver.

### **Segment Three**

The Preferred Alternative would affect three sensitive receivers in this segment. Noise barriers were eliminated from further consideration at impacted receivers 22, 28, and 29 because they are isolated receivers and they did not meet the criterion for reasonable cost of abatement. The cost of noise barriers at receivers 28 and 29 is \$625,000. Receiver 22 was eliminated from consideration of a barrier because of feasibility issues. To provide a long enough continuous barrier to provide the minimum 5 dBA reduction, the barrier would

eliminate access to Chaparral Road. As access must be maintained, the area left for the barrier would not be long enough to provide the required noise reduction.

A ten-point transect in the segment indicates a minimum setback of 250 feet from center line to remain outside FHWA guideline level of 66 dBA during the peak hour for traffic noise.

## Segment Four

Along the bend in this segment, there is a relatively dense grouping of homes east of Substation Road. A sound wall could be feasible in this section. Figure 12 shows one sound wall design. As shown, the height of the sound walls relative to the road elevation would reduce noise impacts to below the FHWA guideline at 31 residences. This design assumes that final grading can be modified to accommodate the preliminary design of the sound wall proposed in this report. The cost of the noise barriers in this segment are dependent on the base elevations extending no more than 2 to 3 feet below the elevation of the finished grade of the roadway.

Along the north side of the project, a 9-foot-high barrier would extend for approximately 750 feet from Substation Road to the east. The barrier would decrease in height to 7 feet for the next 400 feet. The top of the final northern barrier segment would be at least 5 feet above the road elevation for 250 feet. The southern barrier would extend 1,300 feet at 9 feet high and another 500 feet at a height of 5 feet above the roadway elevation. The north and south barriers would cost a total of approximately \$536,000 (or approximately \$17,290 per benefited receiver). The barriers should be absorptive on both sides toward the road.

## Geology/Soils

### *Studies and Coordination*

To prepare the geology/soils section, relevant ITD publications, USGS geologic maps, and Bulletin 29 of the Idaho Geologic Survey (1994) on the Geology and Geomorphology of the Boise Valley and Adjoining Areas, Western Snake River Plain, Idaho were reviewed.

### *Methodology*

Twenty-six soil test pits were dug along the length of Idaho 16 in July 2002. Test pits ranged from 3 to 11 feet in depth. Subsurface soil profiles were logged and sieve analyses, liquid and plastic limits tests, dry density, exudation, moisture content, and pressure tests were performed on selected samples.



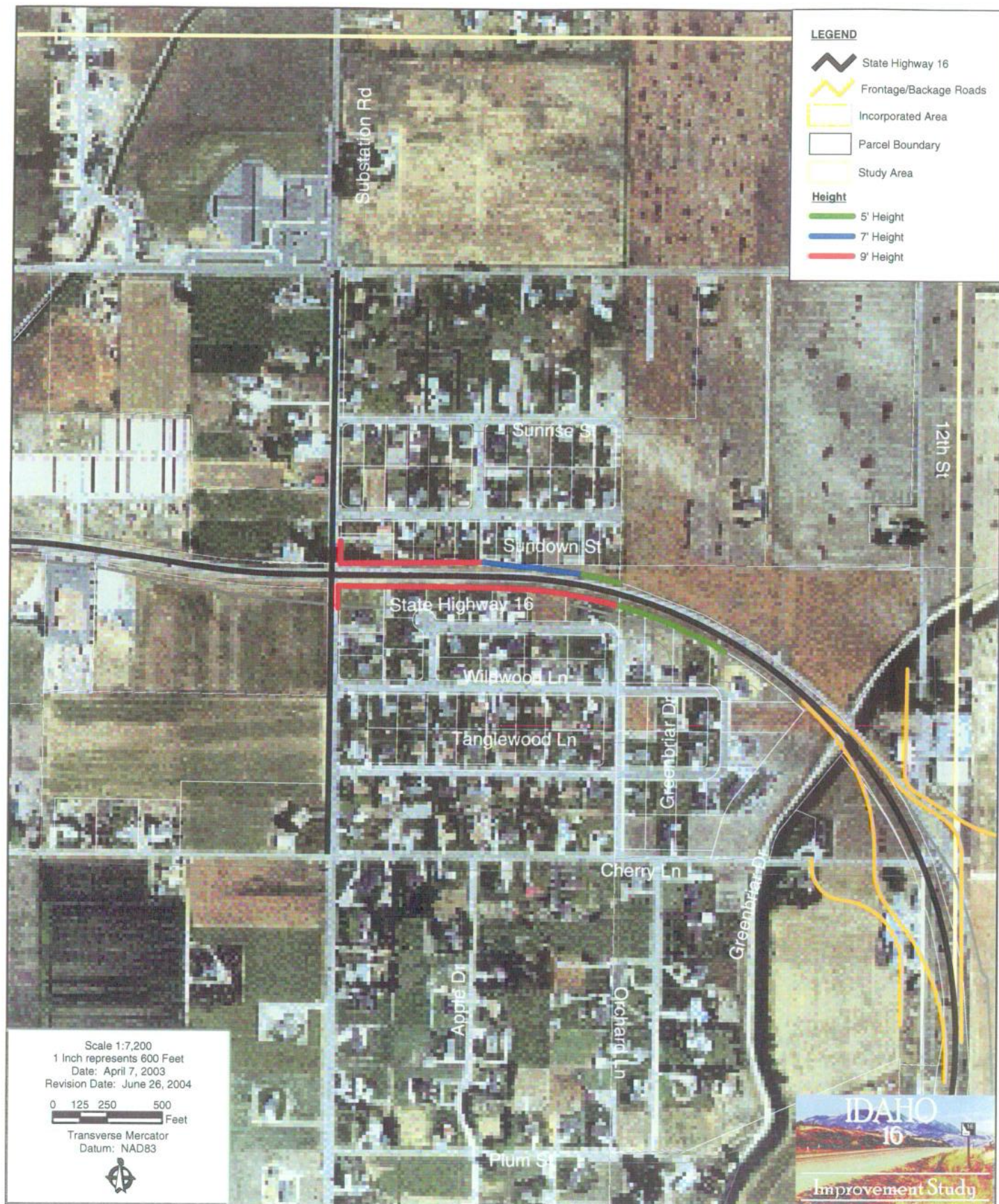


Figure 12:  
Potential Noise Wall Mitigation  
Area Near Substation Road

Idaho 16 Improvement Study

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## *Affected Environment*

The Idaho 16 corridor originates on the northern side of the Boise River Valley, traverses the rolling foothills that separate the Boise River and Payette River valleys, and terminates on the south side of the Payette River Valley (WIS 2002). Elevation varies from 2,480 feet at the Idaho 16/SH 44 intersection, to 2,890 feet at the top of Freezeout Hill. Based on soil test pit data, the river valley soils are typically comprised of sand and silt mixtures with lenses of gravel (WIS 2002). The upland foothills soils are comprised of sand and silt mixtures with some lean clay. Decomposed bedrock of basaltic and granitic origin was also found in the bottom of test pits between mile post (MP) 5 and MP 10.

Groundwater may be as shallow as 5 feet from the ground surface in the river valleys and 50 feet or more in the uplands. No groundwater was encountered in any soil test pit.

In the vicinity of Freezeout Hill, a seismic fault lies just north of MP 10.0 and the risk of seismic activity is considered low.

## *Impacts During Construction*

The current design has a net excess of 1.3 million cubic yards of material. The majority of the excavation is near MP 7.5 to MP 8.5 for mainline widening and construction of frontage roads. This section of the Idaho 16 Improvement project is being taken to final design under the Freezeout Hill South Passing Lanes Project for mainline widening only. During final design, modifications will be made to minimize cuts in this area. This section will widen the mainline before constructing access roads and will further reduce the excess material produced in the mainline widening phase. The potential for wind-blown dust during construction is relatively high with silt content ranging from 3 to 54 percent. Dust can escape from exposed ground surfaces, dump trucks, and from dirt that ends up on paved surfaces. Wind-blown dust can contribute to air quality problems; see Air Quality discussion.

Sandy/silty soils also have relatively high erosion potential, especially on relatively steep cut and fill slopes or on steeper downgradient drainage courses. Exposed soils can be washed off-site during heavy rainstorms and/or following snowmelt. Soil wash-off can contribute to turbidity and suspended solids loading to receiving waters, including Willow Creek, Big Gulch Creek, Little Gulch Creek, and/or irrigation canals or ditches where runoff has the opportunity to discharge. Downstream sedimentation can contribute to loss of culvert and/or channel conveyance capacity.

## *Impacts During Operation*

Impacts during operation can be the same as those during construction if cut and fill slopes and drainage courses are not properly stabilized and/or vegetated.

The existing seismic fault located near MP 10.0 (Affected Environment) provides the potential for earthquake damage to bridge structures; however, the probability of a damaging earthquake is considered low.

## Wetlands

### *Studies and Coordination*

Jurisdictional waters, including wetlands, were identified by compiling data from existing documentation such as USGS Soil Survey mapping, National Wetland Inventory (NWI) mapping, and previously prepared environmental assessments, wetland delineations, and local jurisdiction environmental compliance documentation (Entranco 2003b). The *Soil Survey of Ada County, Idaho* and *Gem County Idaho* were accessed from the Natural Resource Conservation Service (NRCS) website at <http://soils.usda.gov>. Two hydric soils are mapped on the south end of the project: 111 - Moulton Fine Sandy Loam, and 112 - Notus Soils (Entranco 2003b).

Coordination was initiated with the U.S. Army Corps of Engineers (Corps) to determine the jurisdictional status of wetlands. The Corps clarified that only Willow Creek is under Corps jurisdiction as a water of the U.S. (Entranco 2003b) and that none of the wetlands associated with manmade irrigation canals and ditches are under their jurisdiction.

However, in accordance with FHWA's interpretation of Executive Order (EO) 11990, all wetland impacts will be mitigated, since the order does not differentiate between natural wetlands and those associated with manmade features. Therefore, FHWA requires mitigation for impacts to all wetlands, whether or not they fall under Corps jurisdiction. The FHWA requires wetland impacts to be mitigated at a 1.5 to 1 ratio to comply with the no net loss rule of EO 11990.

### *Methodology*

Wetland inventory and mapping was performed on July 10 and 11, 2002. Certified wetland ecologists used NWI maps and aerial photographs to locate and confirm boundaries of existing wetlands. Any wetlands not identified on the NWI maps were hand drawn on field maps at approximate locations. Wetland ecologists used best professional judgment and experience to determine wetland boundaries in the field based on vegetation, hydrology, and soils. The wetlands were flagged and added to the design drawings. Plant species were identified using *Flora of the Pacific Northwest* (Hitchcock and Cronquist 1973).

### *Affected Environment*

Since the early 1800s, a complex network of canals, laterals, and ditches has been constructed to irrigate nearly 4 million acres of farmland in Idaho. About 1,380,000 acre-feet of water are diverted from the Boise River to irrigate Treasure Valley. Water is also diverted from the Payette River. In many cases, wetlands have developed along the margins of the irrigation ditches or where system leaks provide enough water to support wetlands.

A total of 38 wetlands were identified along the project corridor. These wetlands are classified as emergent and are generally dominated by reed canarygrass, purple loosestrife, cattails, bulrushes, cow parsnip, and sedges. Occasional willows are present along some of the larger canals. Two wetland types have been identified in the project area.

The first is palustrine, emergent, persistent, seasonally flooded wetlands – code PEM1F (table 9). These 11 wetlands have been created by leaking irrigation canals. They provide limited groundwater recharge and have some wildlife habitat value.

<p style="text-align: center;"><b>Table 9</b> <b>Wetland Functions and Values</b></p>		
Function and Value	Wetland Type	
	PEM1F	R4SBKFx
Flood Attenuation/Storage (H, M, L)	M	L
Sediment/Shoreline Stabilization (H, M, L)	M	M
Groundwater Discharge (Y/N)	N	N
Groundwater Recharge (Y/N)	Y	Y
Dynamic Surface Water Storage (H, M, L)	L	none
Elemental Cycling	disrupted	disrupted
Removal of Nutrients, Toxicants, and Sediments (H, M, L)	L	L
Habitat Diversity (H, M, L)	M	M
General Wildlife and Fish Habitat (H, M, L)	M	M
Production Export/Food Chain Support (H, M, L)	M	L
Uniqueness (H, M, L)	L	L
Overall Functional Integrity: At or below potential	below potential	below potential
<p>PEM1F= palustrine, emergent, persistent, seasonally flooded.  R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.  H = high, M = medium, L = low</p>		

The second wetland type is riverine, intermittent, streambed, artificially flooded, semi-permanently flooded excavated wetlands – code R4SBKFx (table 9). These 28 wetlands are associated with the artificial canal system. They function as a wildlife corridor and help stabilize the canal banks.

Willow Creek is the only jurisdictional water of the U.S. in the project area (figure 3). It is a riverine, intermittent, stream that is temporarily flooded during and for a short duration following precipitation and spring snowmelt runoff events. The stream is typically dry during summer months.

All existing wetlands have been disturbed and are functioning below potential. Table 9 summarizes existing functions and values.

## *Impacts During Construction*

Widening Idaho 16 will affect 1.7 acres; constructing the new frontage and backage roads will affect 3.1 acres. Wetland impacts were based on GIS map calculations for the project's cut and fill lines.

Table 10 shows that 4.8 acres of non-jurisdictional wetlands will be filled during construction; figures 13 and 14 illustrate the locations of impacts to the 38 wetlands.

## *Impacts During Operation*

Impacts to wetlands during operation of the Preferred Alternative could involve erosion/sedimentation and/or water quality degradation as a result of increased runoff from the wider highway and new frontage and backage roads.

## *No Practicable Alternative Finding*

EO 11990, issued on May 24, 1977, requires evaluation of practicable avoidance alternatives or options to filling or destroying wetlands. If avoidance alternatives are not practicable, then practicable measures to minimize harm are considered and included in the project.

The EO states that each Federal agency "shall avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds (1) that there is no practicable alternative to such construction, and (2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use."

The project will mainly affect wetlands where Idaho 16 crosses irrigation ditches and canals. At each crossing, existing culverts will either be extended or replaced. The existing Idaho 16 corridor is a north-south trending facility which is built perpendicular to the trend of existing irrigation facilities. Many of the canals and ditches in the corridor must follow the slope of the landscape created by the Boise River, which also is on an east-west trend. The primary function, irrigation conveyance, of the canals and ditches will not be affected, but some of the habitat and food chain support functions of wetland vegetation will be lost. In some cases, flood storage functions will be reduced—refer to the Waterways Impact discussion.

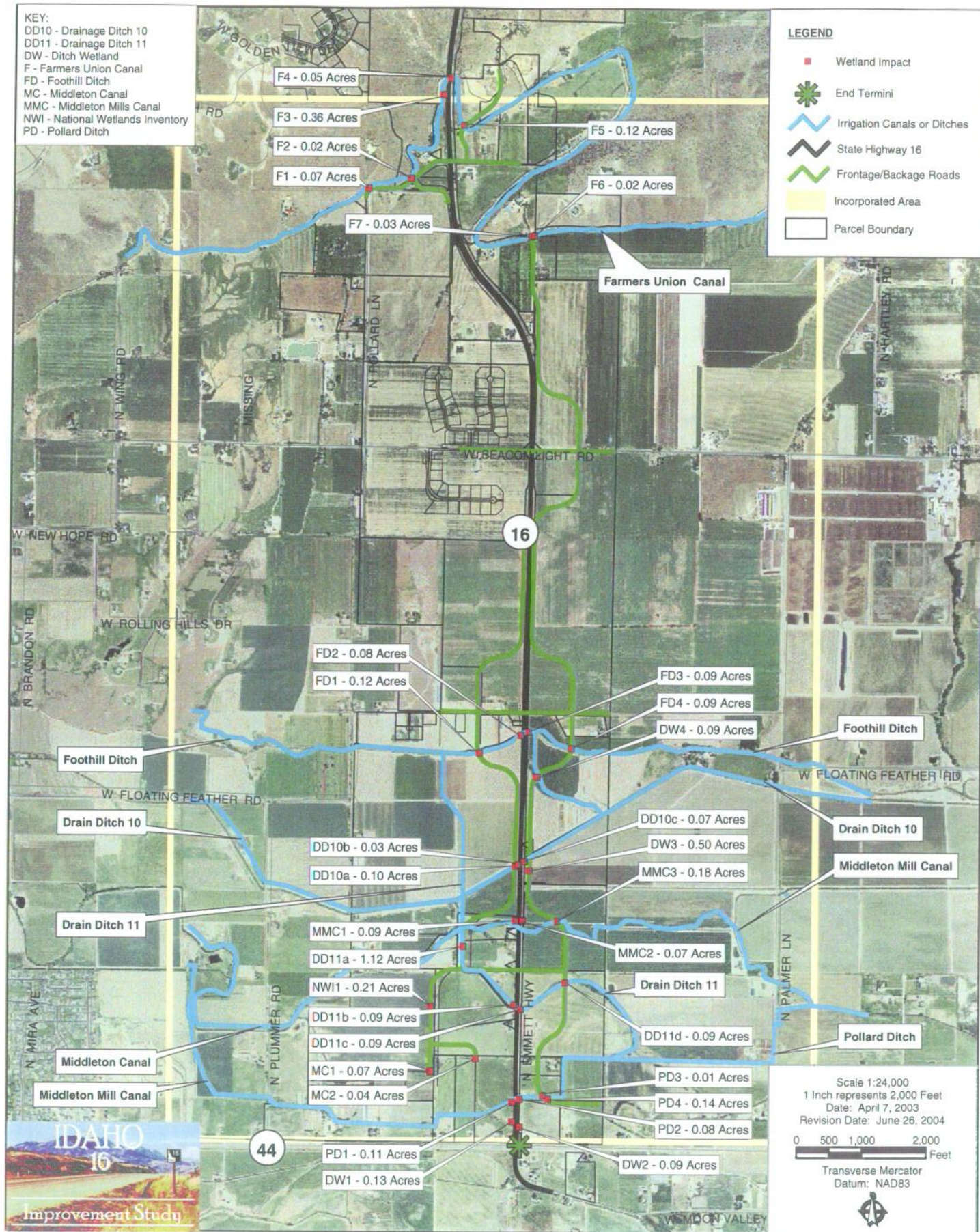
Additional erosion/sedimentation and/or water quality impacts could occur to wetlands if construction runoff is allowed to discharge to them.



**Table 10**  
**Wetlands in the Project Area**

Wetland	Acres Impacted	Wetland Classification
DW1	0.13	PEM1F= palustrine, emergent, persistent, seasonally flooded.
DW2	0.09	PEM1F= palustrine, emergent, persistent, seasonally flooded.
DW3	0.50	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
DW4	0.09	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
FD1	0.12	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
FD2	0.08	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
FD3	0.09	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
FD4	0.09	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
PD1	0.11	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
PD2	0.08	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
PD3	0.01	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
PD4	0.14	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
MC1	0.07	PEM1F= palustrine, emergent, persistent, seasonally flooded.
MC2	0.04	PEM1F= palustrine, emergent, persistent, seasonally flooded.
NW1	0.21	PEM1F = palustrine, emergent, persistent, semi-permanently flooded
DD10a	0.10	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
DD10b	0.03	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
DD10c	0.07	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
DD11a	1.12	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
DD11b	0.09	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
DD11c	0.09	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
DD11d	0.09	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
MMC1	0.09	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
MMC2	0.07	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
MMC3	0.18	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
WG1	0.02	PEM1F= palustrine, emergent, persistent, seasonally flooded.
WG2	0.01	PEM1F= palustrine, emergent, persistent, seasonally flooded.
WG3	0.23	PEM1F= palustrine, emergent, persistent, seasonally flooded.
WG4	0.03	PEM1F= palustrine, emergent, persistent, seasonally flooded.
WG5	0.04	PEM1F= palustrine, emergent, persistent, seasonally flooded.
WG6	0.01	PEM1F= palustrine, emergent, persistent, seasonally flooded.
F1	0.07	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
F2	0.02	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
F3	0.36	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
F4	0.05	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
F5	0.12	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
F6	0.02	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
F7	0.03	R4SBKFx= riverine, intermittent, streambed, artificially flooded, semi-permanently flooded, excavated.
<b>Total</b>	<b>4.8</b>	
Note: All wetlands listed in this table are non-jurisdictional.		





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**Figure 13:**  
**Impacted Wetlands - Mile Post 0.0 to 3.0**

*Idaho 16 Improvement Study*





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**Figure 14:**  
**Impacted Wetlands - Mile Post 11.0 to 13.9**

*Idaho 16 Improvement Study*



In addition to the non-jurisdictional wetland impacts, approximately 0.23 acre of Willow Creek will be disturbed to remove the existing bridge and construct a new bridge. In accordance with Section 404 of the Clean Water Act, a Corps nationwide permit will be required prior to performing this work and will involve mitigating any potential adverse effects. Please see Waterways section for additional details.

Based on the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands that may result from such use. Additional efforts to minimize harm will be implemented as the programmed projects are brought to final design.

### *Wetland Habitat Mitigation Approach*

The wetland mitigation area for the Idaho 16 improvement project is proposed to be located adjacent to the Boise River 1 mile south of Parma, Idaho (figure 1). The mitigation area was selected for its proximity to the affected areas, connectivity to an available water source and water right, and high probability of success. The proposed 10-acre mitigation site is contained within a 500-acre piece of ground, which is actively being managed for wetland creation and enhancement. The site has a management plan in place to support the development of wetlands and pond complexes with a focus on enhancement and development of wildlife habitat. More than 100 acres of wetlands have been created and restored on this site using Natural Resource Soil Conservation Service (NRCS) wetland cost share programs. The site has a wildlife water right from the Boise River as well as irrigation and groundwater supplies. The landowners of the site are willing to draft a conservation easement to allow ITD to purchase an easement for the construction of the wetland mitigation site (correspondence). The wetland mitigation will consist of a combination of wetland creation and restoration on the site. A levied wetland pond complex will be constructed, which will provide a multifunctional wetland in perpetuity.

The wetland mitigation area will meet the criteria for size and type. The replacement area will equal 7.2 acres of wetland in a 10-acre site, which provides a 1.5 to 1 ratio. The replacement wetlands will be palustrine and will include emergent, scrub-shrub, and forested components.

The wetland mitigation area will provide general wildlife and aquatic habitat. Excavating the existing grade will create additional flood storage and attenuation. Groundwater recharge will occur from the increased water storage. Sediment, nutrient, and toxicant removal will increase from retaining the river and irrigation water for longer periods in the wetland areas.

Woody debris will be placed in the wetland to increase cover for wildlife. Native wetland plants with high wildlife value will be planted to provide for wildlife use. All vegetation planted on the project will be native to the region.

## Waterways/Water Quality

### *Studies and Coordination*

Existing documents were reviewed that included local, state, and federal regulations on water quality and standards for pollutants of concern in the project area, stormwater management best management practices (BMPs), and floodplains and associated issues. In addition, two studies on drainage and geologic resources were reviewed (WIS 2002 and 2003).

The IDEQ was contacted on February 10, 2003 to discuss existing water quality conditions in Willow Creek, available water quality data, and key water quality concerns (B. Horsbaugh, personal communication).

### *Methodology*

USGS water quality data were obtained for Willow Creek and evaluated. Floodplain maps were obtained from the FEMA web site and converted to GIS mapping layers for evaluation. GIS was also used to calculate the area of fill within floodplains.

A site visit was performed to evaluate drainage crossings, make visual observations regarding existing water quality conditions, and note any evidence of existing erosion/sedimentation problems.

No hydrologic or hydraulic modeling was performed to determine the size of stormwater facilities or evaluate floodplain impacts.

### *Affected Environment*

#### **Waterways and Water Quality**

Idaho 16 traverses the drainage divide between the Lower Boise River and the Lower Payette River, crossing several small streams (figure 3). The southern end of the project crosses the flat agricultural lands of the Lower Boise River Valley. The highway then ascends about 500 feet into the adjoining foothills before dropping down into the Lower Payette River Valley in Emmett. A sagebrush-steppe ecosystem comprises the foothills. The climate is arid with mean annual precipitation of 11 to 12 inches; nearly 60 percent occurs between November and March (Idaho Soil Conservation Commission 2003).

Idaho 16 crosses Willow Creek at approximately MP 6.5 and Big Gulch Creek at approximately MP 2.8 (figure 3). Willow Creek is a tributary of the Lower Boise River and enters the river near Middleton. Big Gulch Creek infiltrates into the ground as it flows onto the alluvial floodplain southwest of Idaho 16. The soils here are comprised of inter-bedded sands, gravels, and clay lenses, and infiltration is relatively good. Little Gulch Creek parallels Idaho 16 between MP 1.0 and MP 2.0 and discharges to Foothill Ditch prior to downstream discharge to Willow Creek near Middleton.

The southern terminus of Idaho 16 is approximately 0.5 mile from the Lower Boise River and the northern terminus of Idaho 16 is approximately 1.0 mile from the Lower Payette River.

The highway also crosses these irrigation canals/ditches:

- Middleton Canal
- Pollard Ditch
- Drainage Ditch 11
- Farmer's Union Canal
- Last Chance Canal
- Middleton Mill Canal
- Drainage Ditch 10
- Foothill Ditch
- Black Canyon Canal

Based on an IDEQ groundwater study, a shallow aquifer is in the area that ranges in depth from 5 to 30 feet below the ground surface (IDEQ 1999). Groundwater levels vary seasonally with higher levels occurring after spring runoff (February to April) and during the irrigation season (July through mid-October). Existing groundwater in this area is contaminated with high levels of nitrate+nitrogen (exceeded U.S. Public Health Drinking Water Quality Standards in 4 of 5 domestic water supply wells), 1,2,3-trichloropropane (four wells), dacthal (four wells), and atrazine (one well). Agricultural fertilization and chemical use is suspected as the primary source of contamination. The aquifer is considered susceptible to contamination due to sandy, permeable soils and shallow groundwater table (IDEQ 1999).

### *Lower Boise River*

The Boise River flows east to west approximately 0.5 mile south of Idaho 16. Mean monthly discharge varies from 300 cubic feet per second (cfs) in November to 5,000 cfs in May. The Lower Boise River extends from the Lucky Peak Reservoir at river mile 64 to the confluence of the Snake River (river mile 0). Willow Creek enters the system at river mile 24.7. The hydrologic, water quality, and biological regimes have been altered substantially with the construction of dams, irrigation projects, and flood control projects (IDEQ 1999). Existing water quality problems include seasonally high temperatures as well as high levels of sediment and bacteria—all exceeding Idaho water quality standards. These water quality problems are causing impairments to cold water biota, recreation, and water supply beneficial uses (IDEQ 1999). Therefore, IDEQ has listed the Lower Boise River as an impaired water body under Section 303(d) of the Clean Water Act (CWA).

Fish species inhabiting the river include brown trout, rainbow trout, mountain whitefish, carp, chiselmouth, northern pike minnow, dace, sunfish, tui chub, catfish, sculpin, redbelt shiner, sucker, and chub. Brown and rainbow trout generally reside upstream of the Star diversion, although mountain whitefish occur downstream of this location to the Snake River. The warm-water species are more abundant downstream of the Star diversion (IDEQ 1999).

The IDEQ has established total maximum daily load (TMDL) goals and implementation measures for the Lower Boise River in an effort to restore water quality for sediment (reduce total suspended sediment to 50 milligrams per liter (mg/l) for no more than 60 days and 80 mg/l for no more than 14 days) and bacteria (reduce 94% to 50 CFU per 100 ml).



High temperature is believed to be a natural condition and therefore, no TMDL measures have been recommended for temperature (IDEQ 2003).

### *Lower Payette River*

The Lower Payette River flows east to west approximately 1 mile north of the northern project limit and is a tributary of the Snake River. The Lower Payette River basin covers approximately 380,000 acres, including approximately 100,000 acres of irrigated agriculture, with the remaining area sagebrush-steppe. The Lower Payette River has been modified substantially with construction of the Black Canyon Reservoir, numerous irrigation projects, and flood control projects (IDEQ 2003).

Fish species include trout, catfish, bass, crappie, carp, dace, redbreast shiners, sculpin, suckers, and northern pike minnow.

The Lower Payette is listed on the Idaho 303(d) list for temperature, nutrients, and bacteria (IDEQ 2003). Temperature violations are largely of natural origin and therefore TMDL implementation measures are not recommended. TMDL measures are recommended for nutrients (reduce by 30%) and bacteria (reduce by 14 to 44%).

### *Willow Creek*

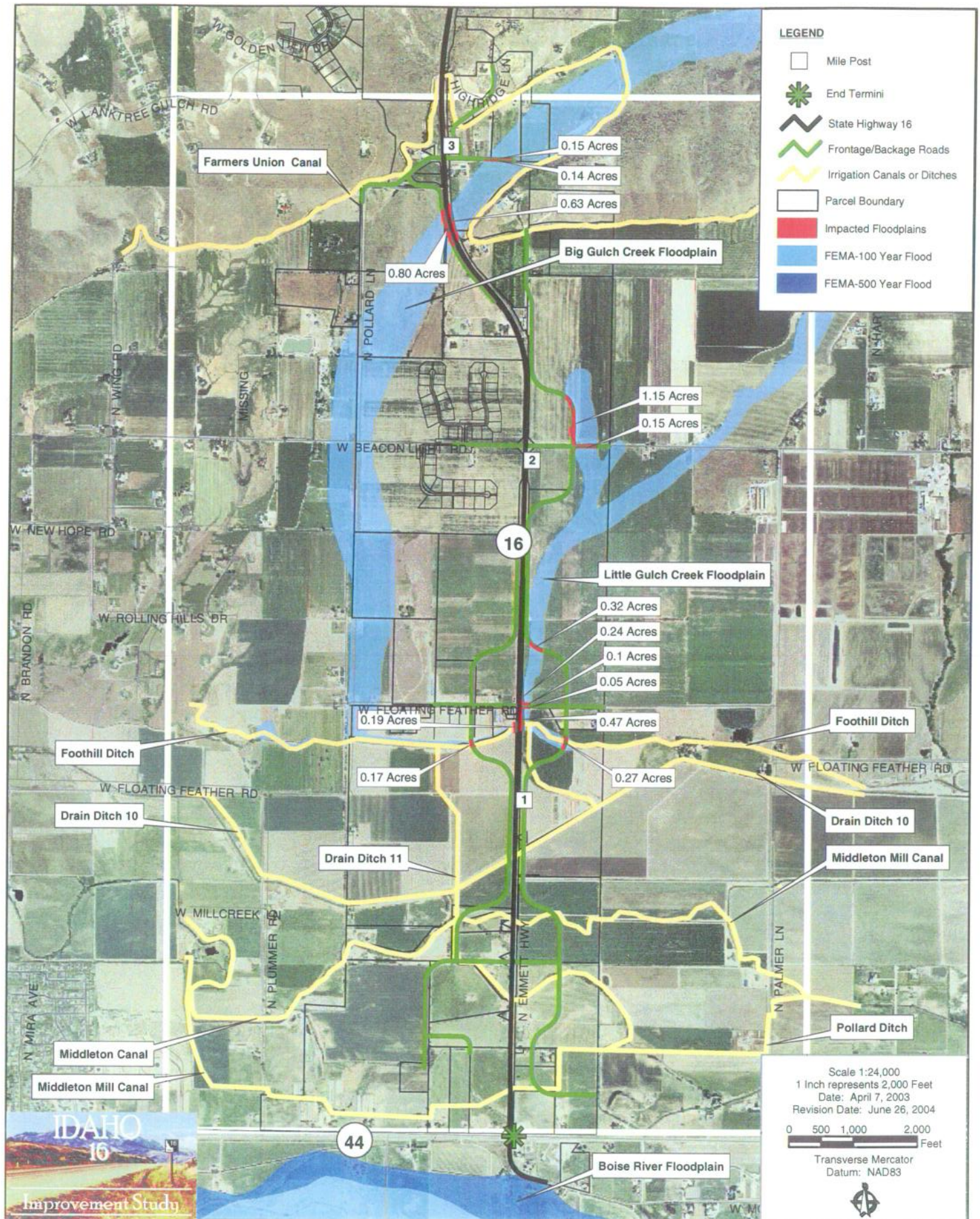
Willow Creek flows northeast to southwest across the Idaho 16 corridor. Stream flows vary from zero to 939 cfs, with an average of 64 cfs. The basin covers approximately 55,545 acres with nearly 5,000 acres in irrigated pasture and croplands. The creek has been modified substantially by channelization, bank stabilization, and irrigation works. The Idaho Soil Conservation Commission (2003) has prepared an agricultural TMDL plan for Willow Creek as an element of the Lower Boise River TMDL. The goals are to reduce sediment by 37 percent and bacteria by 94% (primary standard) and 62% (secondary standard).

Some summer temperature values exceed IDEQ criteria for cold water biota (22 °C or less). Dissolved Oxygen and pH are within acceptable ranges. Bacteria concentrations exceed water quality standards for both primary and secondary contact recreation based on single sample exceedances. Nutrient levels are high; however, periphyton chlorophyll *a* levels are below the nuisance level of 100–200 mg/m<sup>2</sup> (IDEQ 1999).

## **Floodplains**

The 100-year floodplain boundaries for the Little Gulch, Big Gulch, and Willow Creek crossings are illustrated in figures 15, 16, and 17. All mapping is based on FEMA (Federal Emergency Management Administration) maps for the area.





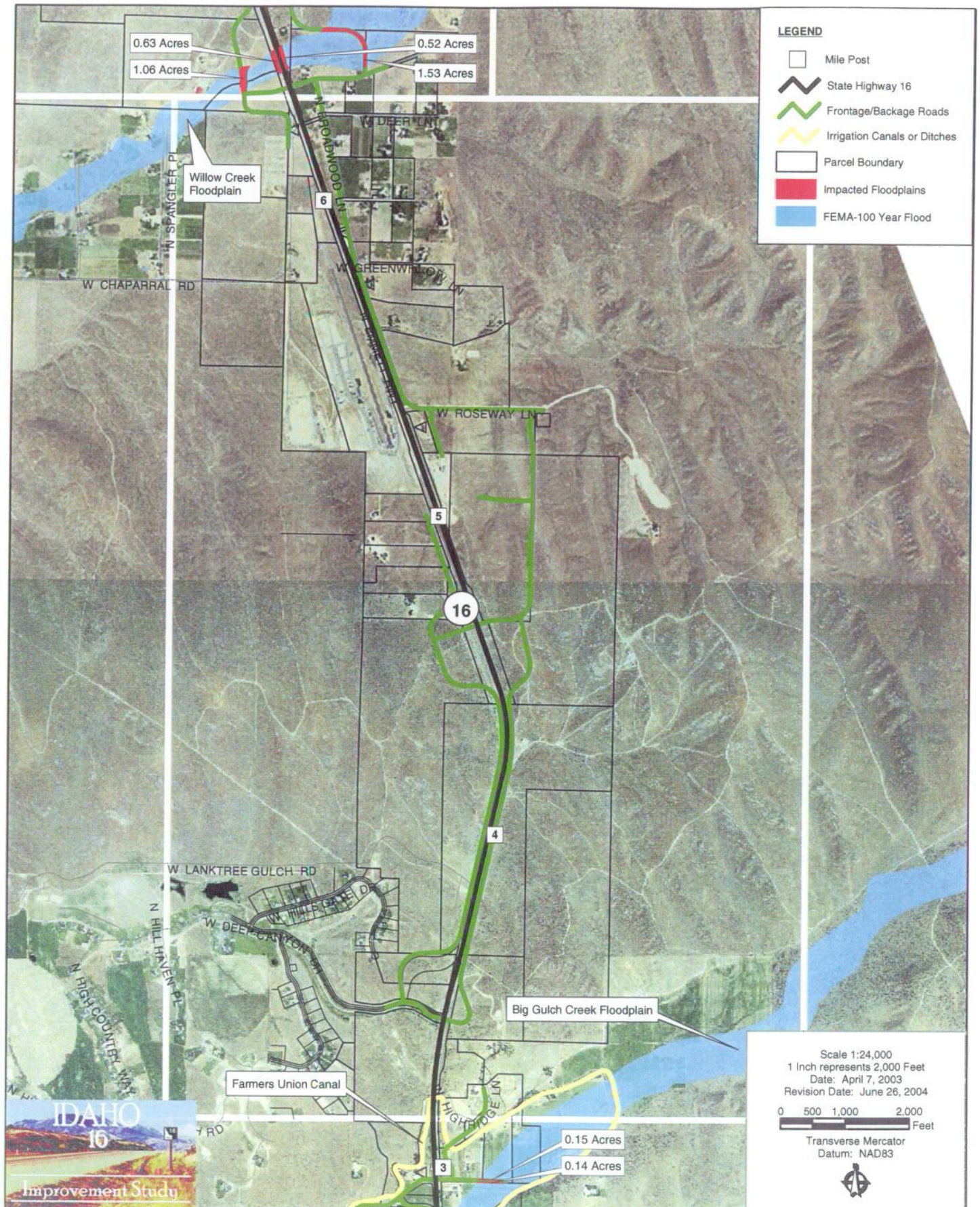
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Figure 15:  
Impacted Floodplains - Mile Post 0.0 to 3.0

Idaho 16 Improvement Study





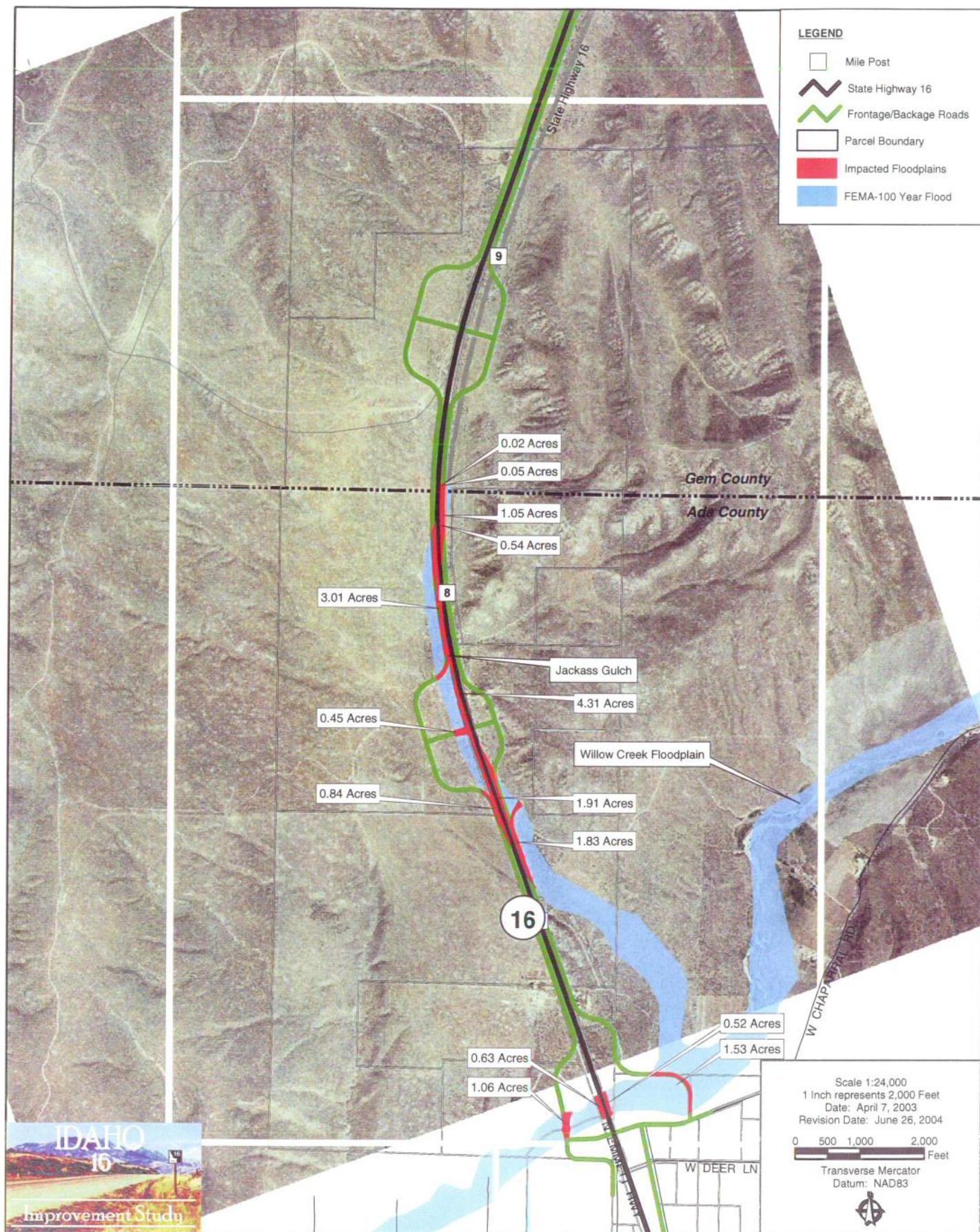
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**Figure 16:**  
**Impacted Floodplains - Mile Post 3.0 to 6.0**

*Idaho 16 Improvement Study*





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Figure 17:  
Impacted Floodplains - Mile Post 6.0 to 9.0

Idaho 16 Improvement Study

### *Executive Order 11988 – Floodplain Management*

EO 11988 requires all federally funded or permitted actions affecting floodplains to:

- ♦ Consider alternatives to avoid adverse effects and incompatible development in floodplains.
- ♦ Design or modify the proposed action to minimize harm to or within the floodplain.
- ♦ Prepare and circulate a public notice containing an explanation as to why the proposed action will be located in the floodplain.
- ♦ Design and construct facilities consistent with the National Flood Insurance Program.
- ♦ Apply flood proofing measures and, wherever practicable, elevate structures above the base flood elevation rather than filling in the floodplain.
- ♦ Provide conspicuous delineation of flood elevations within the flood zone.

Where adverse floodplain impacts are anticipated, an evaluation of alternatives is required and an “Only Practicable Alternative Finding” is required that: (a) reasons why the proposed action must be located in the floodplain; (b) alternatives considered and why the alternatives are not practicable; and (c) a statement indicating whether the action conforms to applicable state or local floodplain protection standards.

### *Ada County Flood Hazard Overlay District*

Under Article F, Flood Hazard Overlay District, Section 8-3F-6-4 – Floodways, Ada County requires a floodplain development permit to verify compliance. This involves:

- ♦ Certification by a professional engineer that any proposed new development within the floodway shall not result in any increase in flood levels during the occurrence of the base flood discharge.
- ♦ No alteration of a watercourse that diminishes the flood-carrying capacity.
- ♦ Stabilization of any structures to prevent floatation, collapse, or lateral movement.
- ♦ Channel and bank stabilization in foothill tributary floodways, certified by a registered professional engineer.
- ♦ Locating all bridge crossings a minimum of 2 feet above the base flood elevation, with all supporting structures able to withstand the flows and velocities of the base flood.

### *Gem County Flood Damage Prevention Ordinance*

The Gem County Flood Damage Prevention Ordinance requires a Floodplain Development Permit to demonstrate compliance. This permit addresses:



- ♦ Encroachments in the floodway, including fill, new construction, etc., are prohibited unless certified by a registered professional engineer or architect that such actions shall not increase any flood levels during the base flood.
- ♦ Any work within the floodway must comply with all the flood hazard reduction provisions of the ordinance regarding flood proofing, etc.

## *Impacts During Construction*

### **Waterways and Water Quality**

Erosion/sedimentation impacts could occur during substantial rainfall and/or snowmelt runoff events when exposed soils could be washed off site and into receiving waters. Sediment deposition could reduce conveyance and/or flood storage capacity. Increased turbidity and associated nutrient loading could be detrimental to fish and other aquatic life. Suspended solids could clog fish gills, degrade spawning habitat, and cover habitat for benthic invertebrates. Increased nutrient loading could result in undesirable algal growth.

In addition, accidental spills of toxic chemicals could occur during construction. Gasoline, diesel fuel, oil, antifreeze, hydraulic fluids, brake fluids, concrete wash water, paving compounds, and other potentially toxic chemicals used during construction could be spilled on the ground or into drainage courses and/or receiving waters and could also contaminate groundwater. Any spills in receiving waters could be lethal to fish and other aquatic life. Any groundwater contamination could impact drinking water in downgradient water supply wells.

## **Floodplains**

The proposed Idaho 16 project will fill 22.6 acres of floodplain (figures 15, 16, and 17). A total of 14 acres is in the Jackass Gulch Creek drainage. With this amount of filling, the potential exists to worsen flooding impacts on adjoining properties.

### *Only Practicable Alternative Finding*

#### **1. Reasons Why the Proposed Action Must be Located in the Floodplain:**

- ♦ Mainline crossings of Willow Creek, Big Gulch Creek, and Little Gulch Creek floodplains must be in the floodplain because they cross Idaho 16 in an east-west direction. Shifting the alignment east or west will not avoid the floodplain.
- ♦ Idaho 16 is in the Jackass Gulch floodplain. A new alignment in this location will produce more impacts than those associated with improving the existing alignment. Frontage and backage roads in the Jackass Gulch floodplain will require hydraulic analysis during final design.

#### **2. Alternatives Considered and Why the Alternatives are Not Practicable.**

- ♦ No Action – The No-Action Alternative does not meet the project purpose and need.



- ♦ Improvement Alternative – Improve Idaho 16 without widening or constructing frontage/backage roads. This alternative also will not meet the project purpose and need, or ITD's access policy.
- ♦ Relocate Idaho 16 west between MP 7 and MP 9 to avoid impacts to the Jackass Gulch Creek floodplain. This alternative was rejected because it will create additional floodplain fill beyond that described in this action.
- ♦ Improve Idaho 16 Without New Frontage/Backage Roads – this alternative will not meet the project purpose and need or ITD's access policy.

### **3. *Conformity with Applicable State or Local Floodplain Protection Standards.***

- ♦ Compliance with Ada County and Gem County flood control ordinances will require culvert crossings in a floodway to pass the 100-year flood. Also, bridge piers at the Willow Creek crossing will be located outside the floodway.
- ♦ In final design, hydrologic and hydraulic analyses will need to verify compliance with the Ada and Gem County flood control ordinances and Federal Flood Insurance requirements.

### **4. *Measures to Minimize Harm to the Floodplain***

- ♦ Hydrologic and hydraulic analyses will be done as projects are brought to final design which contain floodplain impacts as described in this EA.
- ♦ Use 3:1 side slopes and/or retaining walls to minimize side slope fill.
- ♦ Use natural wood, rock, and riparian plantings to stabilize stream banks upstream and downstream of roadway crossings as determined by hydraulic analysis.

## ***Impacts During Operations***

### **Waterways and Water Quality**

During long-term operation, highway runoff could discharge to receiving waters, either directly or indirectly via drainage courses or conveyance facilities. However, most runoff is expected to flow overland across adjoining right-of-way (ROW) and infiltrate into the ground.

Based on comparing existing impervious area (57 acres) to new impervious area (165 acres), the project will generate approximately 2.89 times more pollutant loading than existing conditions. Annual runoff volume will be approximately 222 acre-feet (222 acres of total impervious area times the annual rainfall of 12 inches, or one foot).

Highway runoff typically has elevated concentrations of suspended solids, oil and grease, metals (lead, copper, zinc), bacteria, nutrients, and organic chemicals. Highway runoff is likely to have seasonally high concentrations of roadway de-icing salts and sand, and depending on the use of roadside vegetation maintenance chemicals, may also have elevated concentrations of herbicides and pesticides. A large percentage of runoff pollutants are derived from automobiles and trucks. A large fraction of roadway runoff pollutants can be derived from wind-blown dirt and dust that settles on the roadway. Bacteria sources include road kill animals and bird droppings.

Existing studies indicate that all surface waters and groundwater in the study area have been previously contaminated and are susceptible to additional contamination from highway runoff. Based on existing drainage patterns and site conditions, most runoff will flow overland and infiltrate following rainfall events. If the ground is frozen during a rain-on-snow event, infiltration may be limited and additional surface water may reach receiving waters.

Since most roadway runoff is expected to infiltrate during normal conditions; since area soils are well drained or excessively drained; and since the groundwater table is shallow (5 to 30 feet), groundwater contamination is a concern. Bacteria, metals, and toxic organic chemicals will be of greatest concern. Any groundwater contamination could result in violations of drinking water quality standards in downgradient water supply wells. Since most runoff apparently infiltrates uniformly along the highway, discharge to groundwater may be sufficiently diffuse.

Any runoff reaching receiving waters could have adverse impacts to fish and wildlife and primary and secondary recreational users. Any increase in sediment, nutrient, or bacteria loading to Willow Creek, the Lower Boise River, or the Lower Payette River will conflict with existing TMDL plans.

As described for Impacts During Construction, accidental spills on the new roads could cause impacts to water quality.

## Floodplains

Operational impacts may occur to floodplains if the capacity of culverts, bridge openings, or stream channels is reduced by sediment deposition or debris during or following major flood events. Impacts may also occur if stream channels are eroded and/or otherwise destabilized during high flows.

## Vegetation, Wildlife, and Threatened & Endangered Species *Studies and Coordination*

Federal species lists were obtained from the U.S. Fish & Wildlife Service (USFWS) in March 2004. USFWS also sent a letter in July 2004. The letter and list can be found in Appendix C.

The BLM Four Rivers Field Office botanist was contacted to discuss the project and obtain maps of the known locations of BLM sensitive species. The concern was that the project could affect known populations of *Allium aaseae* (Aase's onion), *Lepidium papilliferum* (slickspot peppergrass), and *Primula wilcoxiana* (Wilcox's primrose) (A. Debolt, personal communication).

The Idaho Conservation Data Center (CDC) was also contacted to obtain any other records of sensitive species in the project area (Correspondence and Supporting Documentation). CDC records showed occurrences of Aase's onion and *Cyperus rivularis* (shining flatsedge) within or adjacent to the project area. Further consultation revealed that shining flatsedge occurrences are outside the project area. ITD will direct contractors during the preconstruction

meetings of the each portion of the improvements concerning measures to avoid and minimize impacts to state sensitive species.

## Methodology

Existing documents and aerial photographs were reviewed to determine whether habitat for the federal listed and state sensitive species occurred in the project corridor.

A field survey was conducted on April 9, 10, and 11, 2002 for Aase's onion, Wilcox's primrose, or any other rare plants. Three separate parcels of BLM land were identified as the survey area. The two southernmost parcels were surveyed on April 9. The northernmost parcel near Freezeout Hill was surveyed on April 10 and 11. All BLM land within 0.25 mile of Idaho 16 was surveyed for the presence of Aase's onion, Wilcox's primrose, or any other rare plants. All occurrences found were recorded using the Idaho Rare Plant Observation Report Form from the Idaho CDC and recorded (Entranco 2003c).

During the week February 13, 2003, a two-person crew surveyed for slickspot habitat (termed slickspots) along the Idaho 16 corridor from MP 3 to MP 10 (Entranco 2003c). The ground was free from snow at the time of the survey. The remaining portions of the project area (between MPs 0–3 and 10–12) were not surveyed due to lack of suitable sagebrush-steppe habitat.

## Affected Environment

Table 11 lists the species reviewed for possible occurrence in the study area based on the USFWS letter dated September 1, 2003. Among the species reviewed, none were found in the project area.

Table 11 Threatened Candidate and Sensitive Species in the Project Area		
Common Name	Federal Status	Presence in Project Site
Bald eagle ( <i>Haliaeetus leucocephalus</i> )	Threatened	Occasional Wintering/Foraging
Gray wolf ( <i>Canis lupus</i> )	Experimental/Nonessential	Not present
Bull trout ( <i>Salvelinus confluentus</i> )	Threatened	Not present, no suitable habitat
Bull trout Critical Habitat	Proposed	Not present
Yellow-billed cuckoo ( <i>Coccyzus americanus</i> )	Candidate	Not present
Southern Idaho ground squirrel ( <i>Spermophilus brunneus endemicus</i> )	Candidate	Not present

Aase's onion and Wilcox's primrose identified during surveys are listed in the Rare Plant Survey for the BLM (Entranco 2003c). Additional plant and wildlife species that may be present in the study area were also documented (Entranco 2003c).

## *Impacts During Construction*

The project will have **No Effect** on the bald eagle since eagles use the area only occasionally for wintering and foraging and have priority habitat areas of preference. The project will have **No Effect** on the gray wolf, bull trout, yellow-billed cuckoo, or southern Idaho ground squirrel, since it has been determined that these species do not occur in the area.

Five populations of Aase's onion will be directly impacted by roadway construction due to excavation or fill. However, the two populations of Wilcox's primrose are outside the construction zone and will not be impacted.

## *Impacts During Operation*

Impacts on sensitive plant species may occur with any post-construction erosion/sedimentation impacts in the vicinity of the populations. Impacts will result from covering the plants or nearby plant associations and by providing opportunity for invasive species.

## **Land Use**

### *Studies and Coordination*

The City of Emmett, Gem County, Ada County, and City of Star planning departments, or appropriate officials, were contacted for information. Other agency communications, 2000 census data, facilities information from public service and utility providers, aerial photographs, site visits, and personal communications also provided data for analysis.

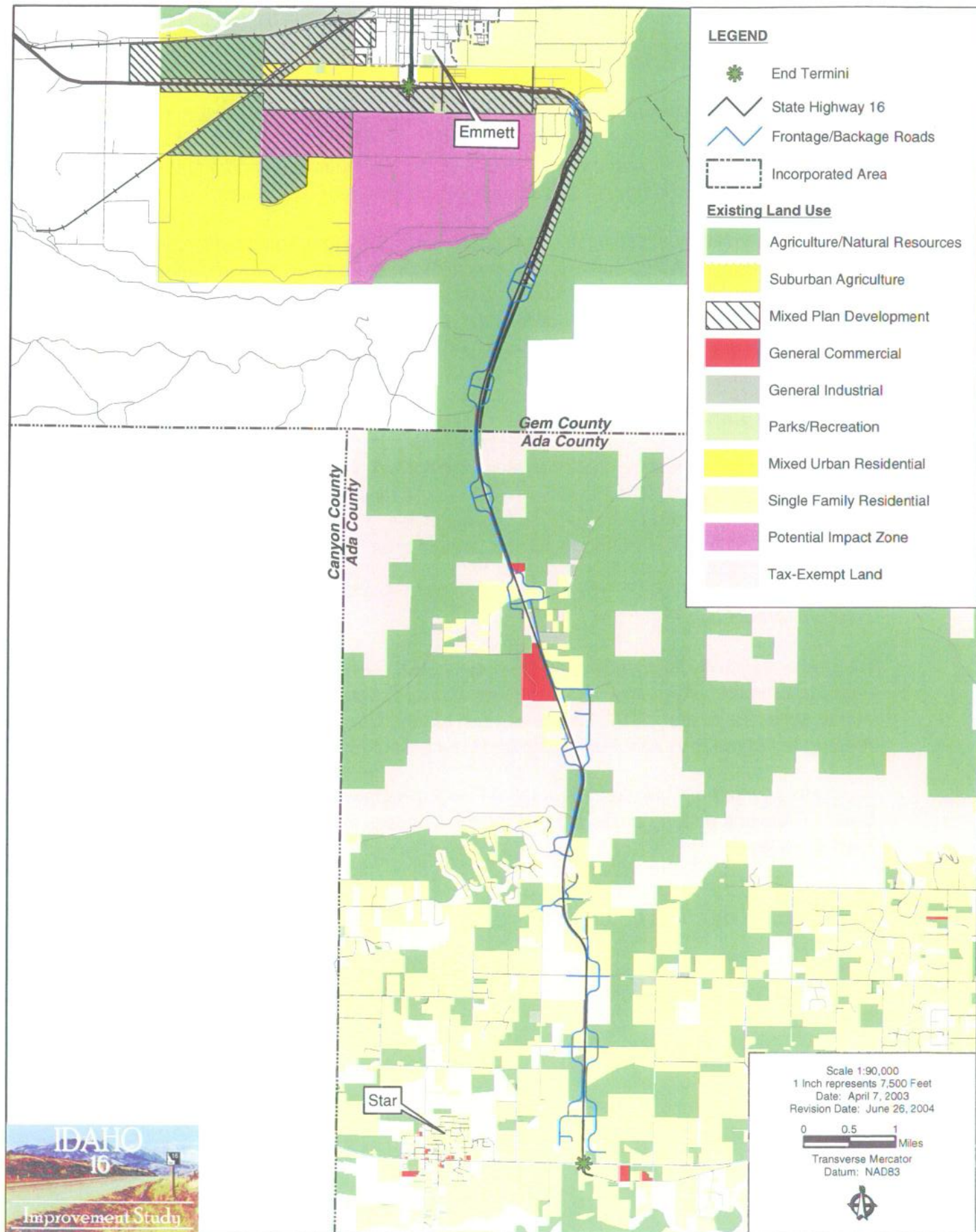
### *Methodology*

Several documents were used in preparing this section, including local jurisdiction land use plans and zoning codes, regional plans, and federal regulations.

### *Affected Environment*

The Idaho 16 corridor has mostly rural residential and agricultural land uses. Idaho 16 is a primary commuting route between Emmett and Boise. Figure 18 shows existing land use.





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**Figure 18:**  
**Existing Land Use**  
*Idaho 16 Improvement Study*

### *Commercial Land Uses*

The highest concentration of commercial uses in the project area is near Emmett, Idaho at the northern terminus, in an area designated Mixed Plan Development. These commercial land uses provide goods and services to the surrounding community and commuters passing through the area, including retail, gas stations, and other vocational uses.

A few commercial uses also occur along Idaho 16 in Gem and Ada counties, including the Firebird Raceway in Ada County on the west side of Idaho 16 and the Winery at Eagle Knoll. Also, several family owned and operated businesses exist along the project corridor. Plans are underway to build a new golf course next to the Winery at Eagle Knoll as part of a 240-acre development (driving range, new vineyards, and single-family homes).

### *Residential Land Uses*

Rural residential homes are scattered along the project area, with the majority either near SH 44 or near Emmett. The homes near SH 44 are mostly tied to farming activity, while homes near Emmett are part of planned communities. Other communities within the project area are near Willow Creek and the Deep Canyon area.

### *Recreational Uses*

Recreational activity is limited within the project area. A camping site is located off of Idaho 16 near the Emmett fairgrounds. Also, the Freezeout Hill Lookout site is located in Gem County on the west side of Idaho 16. Drivers can pull off and view the Emmett Valley below while reading about the area's first residents and view a September 11, 2002 Monument.

A privately owned dirt bike track is west of Firebird Raceway. Local residents pay to use the track. Trails and parking areas provide roadside access for horseback riding and other off-road activities.

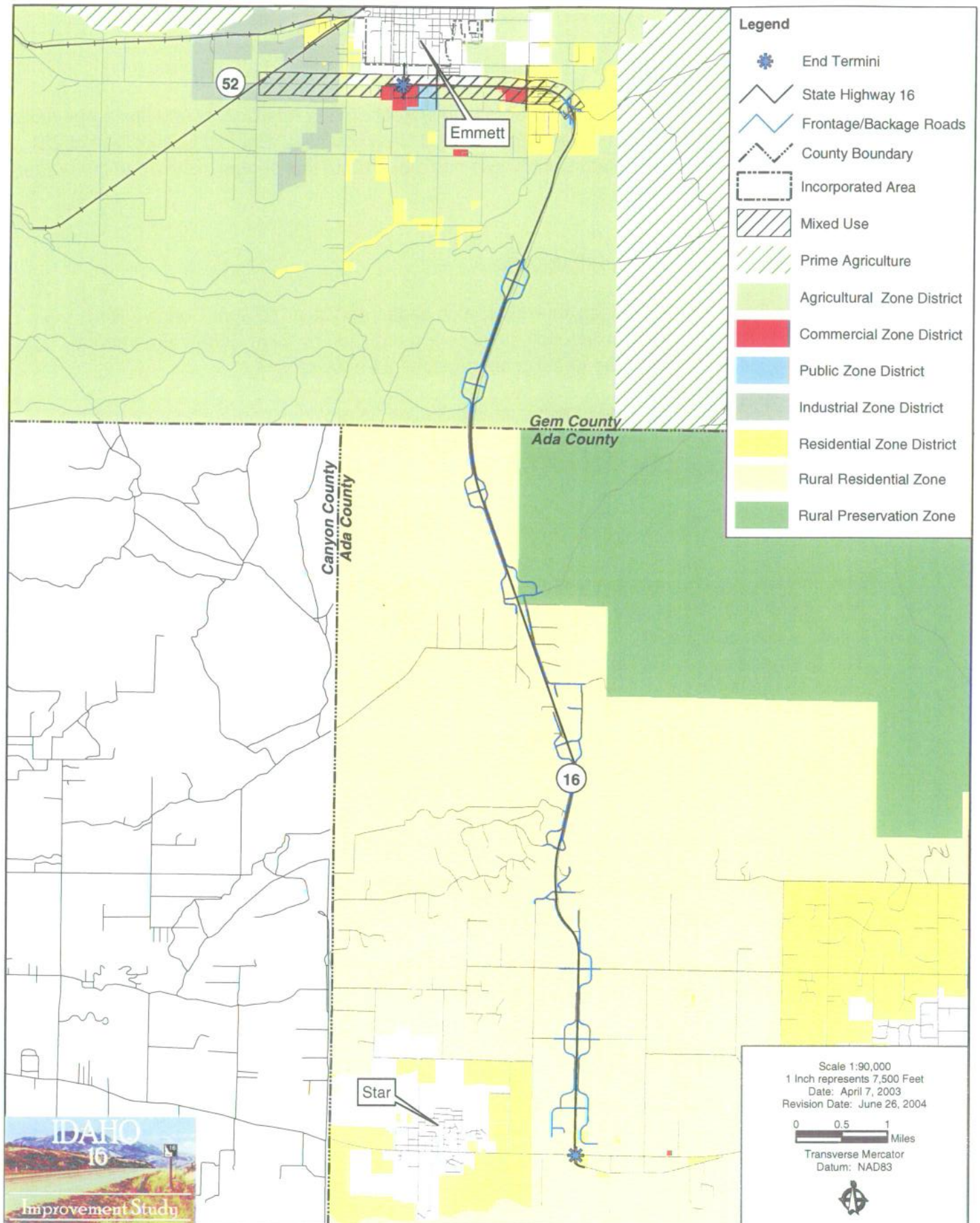
### *Agricultural and Public Lands*

Agricultural land use occurs along most of the project corridor (also see *Farmland and Irrigation*). A large portion of land (about 42 acres) adjacent to Idaho 16 is BLM property.

### *Land Use Zoning*

The project lies mostly within two zones: Rural Residential (RR), Ada County; and Agricultural, Gem County. Figure 19 shows existing zoning, which differs from land use in several areas.





**Figure 19:  
Existing Zoning**

*Idaho 16 Improvement Study*

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### *Schools*

Meridian Joint School District No. 2 serves the project area in Ada County and has a bus route that serves Idaho 16 up to the border of Ada and Gem counties. Emmett School District 221 serves the project area in Gem County and has a bus route that serves Idaho 16 to the border of Ada and Gem counties.

### *Police, Fire, and Emergency Services*

The Gem County Sheriff's department dispatch center serves all of Gem County. Non-emergency transports and extrication services are provided by Gem County Emergency Medical Services (EMS). The department provides 24-hour service.

Ada County EMS serves Ada County. Medic Station 56 provides primary response to the portion of Idaho 16 that lies in Ada County. Ada County Sheriff's Department also responds to emergencies along Idaho 16 in Ada County.

### *Utilities*

Idaho Power provides electricity to the project area. For the first 2 miles of Idaho 16 from its intersection with SH 44, overhead poles on the east side parallel Idaho 16 and then cross to the west side near Beacon Light Road, leaving the project area and disappearing over the hill. The overhead power line reappears at Firebird Raceway and crosses back to the east side of Idaho 16 before crossing back to the west side near the Halfway Village.

Emmett provides water and sewer services in the northern portion of the project within Gem County. The City does not serve the county's southern part, or what is known as Freezeout Hill, near the Ada County border. It is unlikely the City will extend services anytime soon.

The project area within Ada County is served by wells and individual septic systems.

Intermountain Gas Company serves more than 200,000 customers and supplies the project area with natural gas. The company is a privately owned with headquarters in Boise.

Qwest Communications provides telephone and Internet services to the project area. Charter Communications provides television cable services.

## *Impacts During Construction*

Impacts during construction will include both temporary disturbances of existing land uses and conversion to transportation land use through acquisition of additional ROW for the project. Tables 12 and 13 approximate the existing land use types that will be converted to transportation use in Gem County and Ada County. New ROW will be required along the entire roadway corridor on both sides of the roadway. The acreages in tables 12 and 13 account for the land necessary to widen Idaho 16 and to build the frontage and backage roads. Acreages for ROW impacts were determined using cut/fill limits from the preliminary



design. Approximately 400 acres of ROW will be acquired for the project (WIS 2004). This number will change as final negotiations are conducted during the project's phases.

<b>Table 12</b> <b>Acreage of Existing Land Use Types Directly Converted to Transportation Uses in Gem County</b>		
<b>Land Use Category</b>	<b>Mainline Acreage</b>	<b>Frontage/Backage</b>
Single-Family Residential	0	2
Agriculture/Natural Resources	15	36
City Limits	4	3
Mix Plan Development	60	10
Other	1	1
<b>Subtotal Acres</b>	<b>80</b>	<b>52</b>
<b>Total</b>	<b>132</b>	
Notes: All acreages have been rounded to the nearest whole acre.		

<b>Table 13</b> <b>Acreage of Existing Land Use Types Directly Converted to Transportation Uses in Ada County</b>		
<b>Land Use Category</b>	<b>Mainline Acreage</b>	<b>Frontage/Backage</b>
General Commercial	4	1
Agriculture/Natural Resources	10	59
Tax Exempt Land	10	35
General Industrial	0	1
Single-Family Residential	15	39
<b>Subtotal Acres</b>	<b>39</b>	<b>135</b>
<b>Total</b>	<b>174</b>	
Notes: All acreages have been rounded to the nearest whole acre.		

To widen Idaho 16 and construct new frontage and backage roads, the proposed project will cross lands owned by BLM and may affect access temporarily (Tax-Exempt in table 13). The project will require some property for ROW or the granting of a transportation easement.

Temporary impacts will vary from location to location, including traffic detours and an increase in noise, dust, and traffic congestion during construction. During construction, travel times will increase due to traffic detours and vehicle delays, particularly at new intersections because of lane reductions used to provide work zones. Businesses near Emmett will most likely see a reduction in parking areas and access limitations due to construction within the ROW. These

disruptions will most likely make the project area less appealing and reduce business activity for local merchants, especially in and near Emmett.

Utilities, both public and private, within the project's construction limits will be either adjusted or relocated prior to or during construction. Utility customers, both residences and businesses, may experience temporary service disruptions during utility relocation efforts.

Emergency response time for police, fire, and medical services will be expected to increase temporarily whenever service vehicles must travel on Idaho 16.

## ***Impacts During Operation***

Once in operation, the Preferred Alternative will increase vehicular mobility along Idaho 16 and provide safer access to commercial, farmland, and residential areas through the use of frontage and backage roads and new intersections.

The project will alter the overall character of the communities, particularly where new frontage and backage roads will be built to provide access and accommodate additional development in the corridor. Where existing residential displacements occur, neighborhoods will take on a new shape as some of the existing homes are removed. The project will not separate any existing residential or commercial areas from their neighboring uses. Improvements to existing streets or the construction of new turn lanes and access roads will improve vehicular and pedestrian movements throughout the project area.

## **Farmland and Irrigation *Studies and Coordination***

Locally important farmlands as well as prime and unique farmlands were inventoried for the project. A Farmland Conversion Impact Rating (Form AD-1006) was completed (see Forms section), and is on record with the NRCS. Contact also took place with the Farmer's Union Ditch, Gem County Irrigation District, and Emmett Irrigation District, as well as landowners to help determine impacts to farmlands and irrigation in the project area.

## ***Methodology***

Aerial maps with alignment plans, along with site visits, were used to complete the farmland impact assessment. Alignment plans were overlaid on GIS mapping to determine impacts.

Under the Farm Protection Policy Act (FPPA), federal agencies sponsoring a project are required to examine the impacts of their programs. For this project, a site assessment was completed using AD-1006. NRCS is responsible for the land evaluation component. Sites receiving a combined score of less than 160 per the Land Evaluation and Site Assessment system do not require further evaluation. Alternatives should be proposed for sites with a combined score greater than 160 points.

## Affected Environment

The majority of farmland in the project area is considered *Prime Farmland or Prime Farmland if Irrigated* by NRCS, according to their Soil Survey Geographic Database. The NRCS defines prime farmland as land that has the best combination of physical and chemical characteristics for producing agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor and with minimal soil erosion. Because of this definition, prime farmlands include acreages that are designated as other land uses and that may not be in use for agriculture at this time.

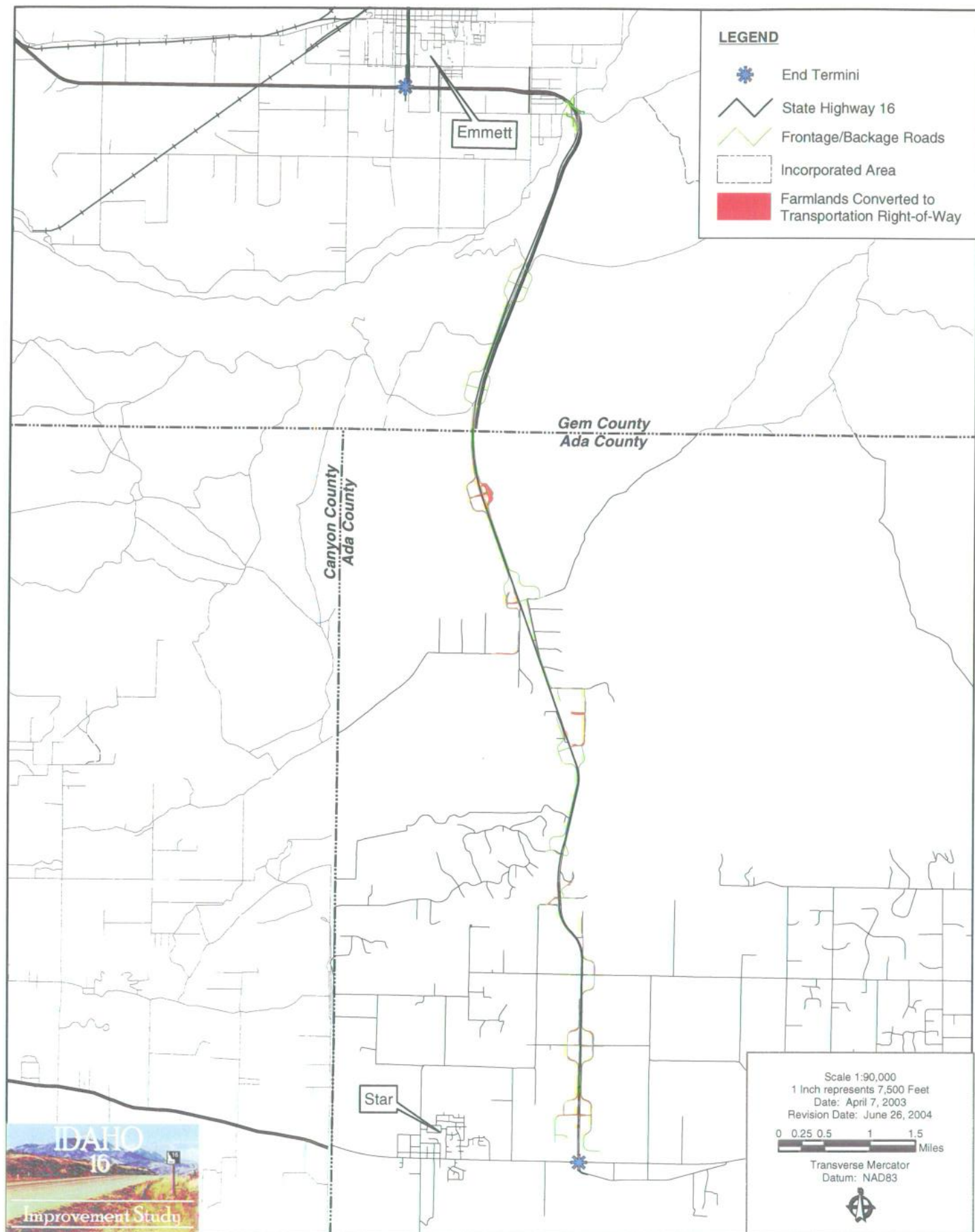
Within the project area, approximately 71 acres of prime farmlands occur adjacent to Idaho 16 in Gem County and approximately 87 acres occur adjacent to Idaho 16 in Ada County. The project area also contains locally important farmlands, meaning the farmlands are important to the area's local economy and business infrastructure. Farmland parcels in the project area range from 1.5 acres to more than 350 acres. The primary crop in the area is alfalfa. Farmland is also used for grazing, with most grazing occurring within Gem County.

Canal systems irrigate most, if not all, of the farmland within the project area. The Emmett Irrigation District controls the canals within the project area in Gem County, while The Farmer's Union Ditch controls most canals within the project area in Ada County. Most farmland near MP 3 to MP 5 is currently zoned rural residential. This area has experienced a trend of land being sold for development. Some farmland currently under cultivation is already platted for commercial and residential development.

## Impacts During Construction

The project will affect 62 farmland parcels, approximately 120 acres (figure 20 and table 14). To determine impacts, the preliminary design was placed over existing land use maps. Farmlands within the cut/fill lines for either the mainline or frontage and backage roads were considered affected. Frontage and backage road construction will divide 21 farmland parcels in Ada County and 5 farmland parcels in Gem County, for a total of 26 farmland divisions. Construction of frontage and backage roads will break these lands into one or more parcels.

Table 14 Farmland Impacts	
Farmland Component	Preferred Alternative
Gem County Farmland	51 acres
Ada County Farmland	69 acres
<b>Total Acquired for ROW</b>	<b>120 acres</b>
Farmland Parcels	62
Divided Farmland Parcels	26
Canal/Irrigation Ditches	Seven
Pivots	One
NRCS Impact Rating Score	180



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**Figure 20:**  
**Farmlands Converted to**  
**Transportation Right-of-Way**

*Idaho 16 Improvement Study*



During construction, farmers or others using agricultural properties will experience more delays in moving equipment. For those whose lands are being divided, conducting farming or grazing activities will present more challenges while construction is occurring.

Upon reviewing form AD-1006, the NRCS stated that the proposed action will convert less than 1% of the farmland (both Prime and Prime if Irrigated) in Gem and Ada counties to nonagricultural uses. The land evaluation score on form AD-1066 was 100, while the site assessment score was 80 for a total of 180. Under FPPA, sites receiving a combined score of more than 160 require further evaluation and development of potential mitigation measures. The form and criteria for the rating are provided in the Forms section of this EA.

The project will directly convert approximately 15 acres to widen Idaho 16 and 36 acres to construct the frontage and backage roads in Gem County. In Ada County, approximately 10 acres will be converted to widen Idaho 16 and 59 acres to construct the frontage and backage roads.

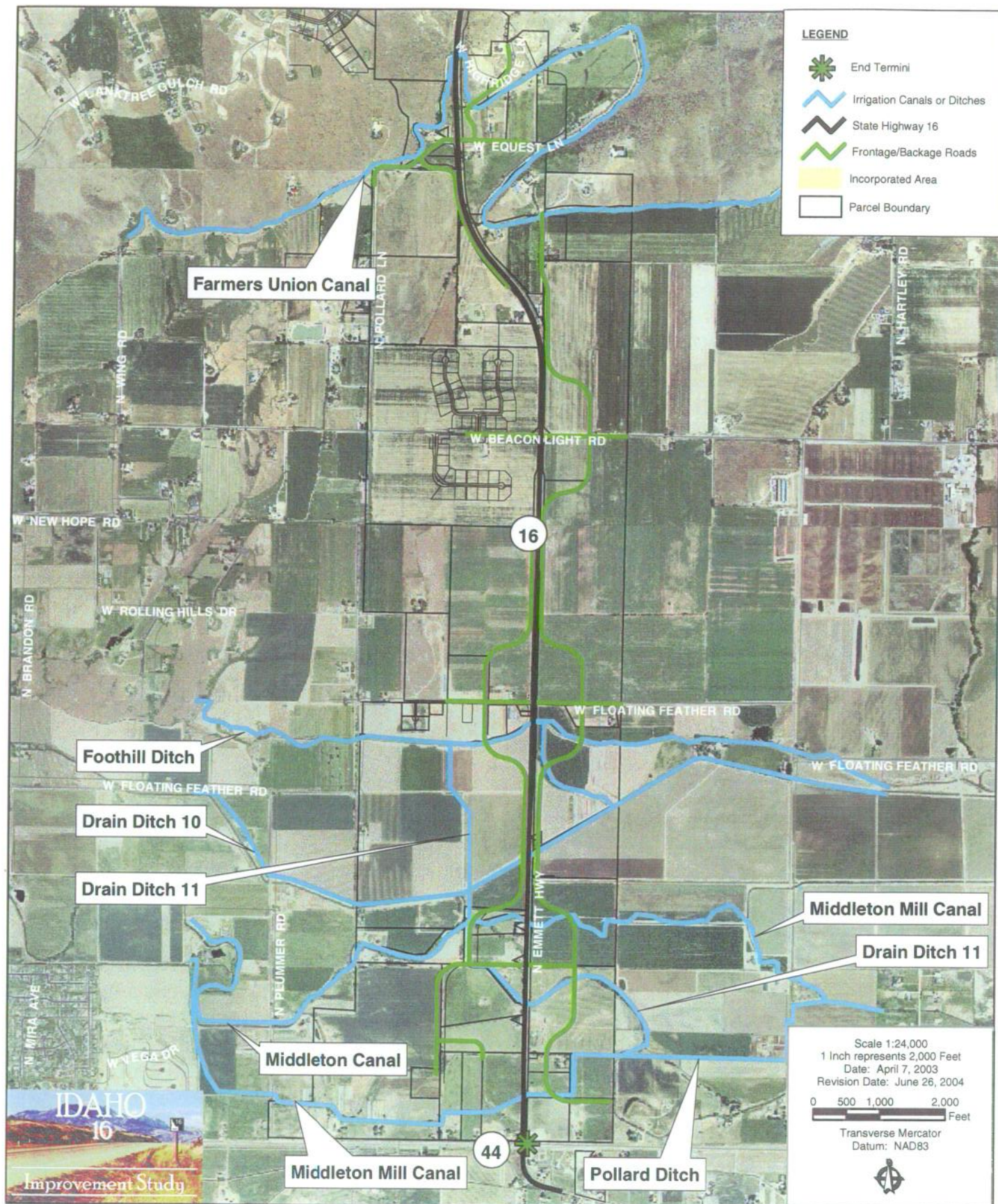
Irrigation canals that cross under Idaho 16 will be reconstructed, and new culverts installed where canals cross new frontage and backage roads (figures 21 and 22). These impacts will be temporary and will not have long-term impacts. The project will cross these canals/ditches:

- **Pollard Ditch:** Crosses Idaho 16 and will cross one frontage/backage road.
- **Middleton Mill/Middleton Canal:** Crosses Idaho 16 and will cross two frontage and backage roads.
- **Foothill Ditch:** Crosses Idaho 16 and will cross two frontage and backage roads.
- **Black Canyon Canal:** Crosses Idaho 16 and will cross two intersection ramps.
- **Drain Ditch 11:** Crosses Idaho 16 and will cross two frontage and backage roads. Project requires 400-foot realignment.
- **Drain Ditch 10:** Crosses Idaho 16 and will cross two frontage and backage roads.
- **Last Chance Canal:** Crosses Idaho 16.
- **Farmer's Union Canal:** Crosses Idaho 16 and will cross one frontage/backage road. Project requires 125-foot siphon extension under Idaho 16 crossing.

## *Impacts During Operation*

Under the proposed design, two stop-controlled intersections will operate at Level of Service F (LOS F): Idaho 16/Floating Feather Road and Idaho 16/Chaparral Road. Moving farm vehicles across four lanes of Idaho 16 will be more difficult at these two intersections. Movement will be smoother at the signalized intersections where the LOS will improve to LOS D with the project and farmers may also benefit from the wider shoulders that will allow them to move equipment without being in the main stream of Idaho 16 traffic. Also, for those whose farmlands are now divided by this project, operations may become more expensive as the economies of size will be lost and more time will be spent moving equipment.





**Figure 21:**  
 Irrigation Canals or Ditches Impacted  
 by the Project - Mile Post 0.0 to 3.0

*Idaho 16 Improvement Study*

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## Environmental Justice *Studies and Coordination*

Year 2000 census data and assessor's data for Gem and Ada counties were used to determine the characteristics of residents and businesses in the project vicinity.

### *Methodology*

Title VI of the Civil Rights Act of 1964 states that:

No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. (42 USC 2000d)

Presidential EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed by the President on February 11, 1994, further directs federal agencies to identify and address disproportionately high and adverse human health and environmental effects, including the interrelated and social and economic effects of their programs, policies and activities on minority and low-income populations in the United States. In determining whether an impact falls disproportionately on minority or low-income populations, this report considers the entire low-income and minority populations in the affected area so as not to exclude those who do not live in a geographic area classified as "minority" or "low-income."

How many minority and/or low-income individuals (i.e., what percentage of the population) does it take to designate a specific area as a minority and/or low-income area? The Presidential Executive Order is silent on this issue. However, the Council on Environmental Quality (CEQ) *Environmental Justice Guidance Under the National Environmental Policy Act*, 1998, contains the following in its discussion of minority population identification: "Minority populations should be identified where either: (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis." This methodology was adopted to identify both minority, elderly, disabled, and low-income populations and areas.

### *Affected Environment*

Per 2000 census data for Gem County, 6.9 percent of the population within the project area are considered minority, about 13.6 percent are considered low-income, 12.3 percent are considered elderly, and 39.1 percent have a disability, compared to 6.2 percent, 13.1 percent, 15.6 percent, and 36.1 percent, respectively, countywide.

Per 2000 census data in Ada County, 4.7 percent within the project area are considered minority, about 4.4 percent are considered low-income, 7.8 percent are considered elderly,



and 19.9 percent have a disability, compared to 7.1 percent, 7.7 percent, 9.1 percent, and 23.8 percent, respectively, countywide.

As indicated by the data, the project area does not have any disproportionately high populations of minority or low-income citizens. Therefore the project area does not have an environmental justice (EJ) population.

## *Impacts*

No minority or low-income populations have been identified that will be adversely affected by the proposed project as determined above. Thus, this project will not have disproportionately high and adverse effects on minority or low-income populations per EO 12898.

## **Displacements/Relocations**

### *Studies and Coordination*

Aerial photographs, 2000 census data, assessor's data for Gem and Ada counties, and field surveys were used to determine the characteristics of residences and businesses in the project vicinity. Assessor's Offices for Gem and Ada counties, The Intermountain Multiple Listing Service (IMLS), and local realtors were also consulted to determine housing costs and availability of comparable residential and commercial properties in the area.

## *Methodology*

The impact analysis considered the number of businesses and residences that will be displaced as a result of ROW acquisition. If a property was located within the cut and fill limits of the Preferred Alternative, it was considered to be an impacted property. When the ROW runs through or very close to an existing building or structure, that structure was considered to be a displacement impact. The extent of ROW requirements was based on preliminary design.

## *Affected Environment*

Refer to the Land Use and Farmland and Irrigation sections.

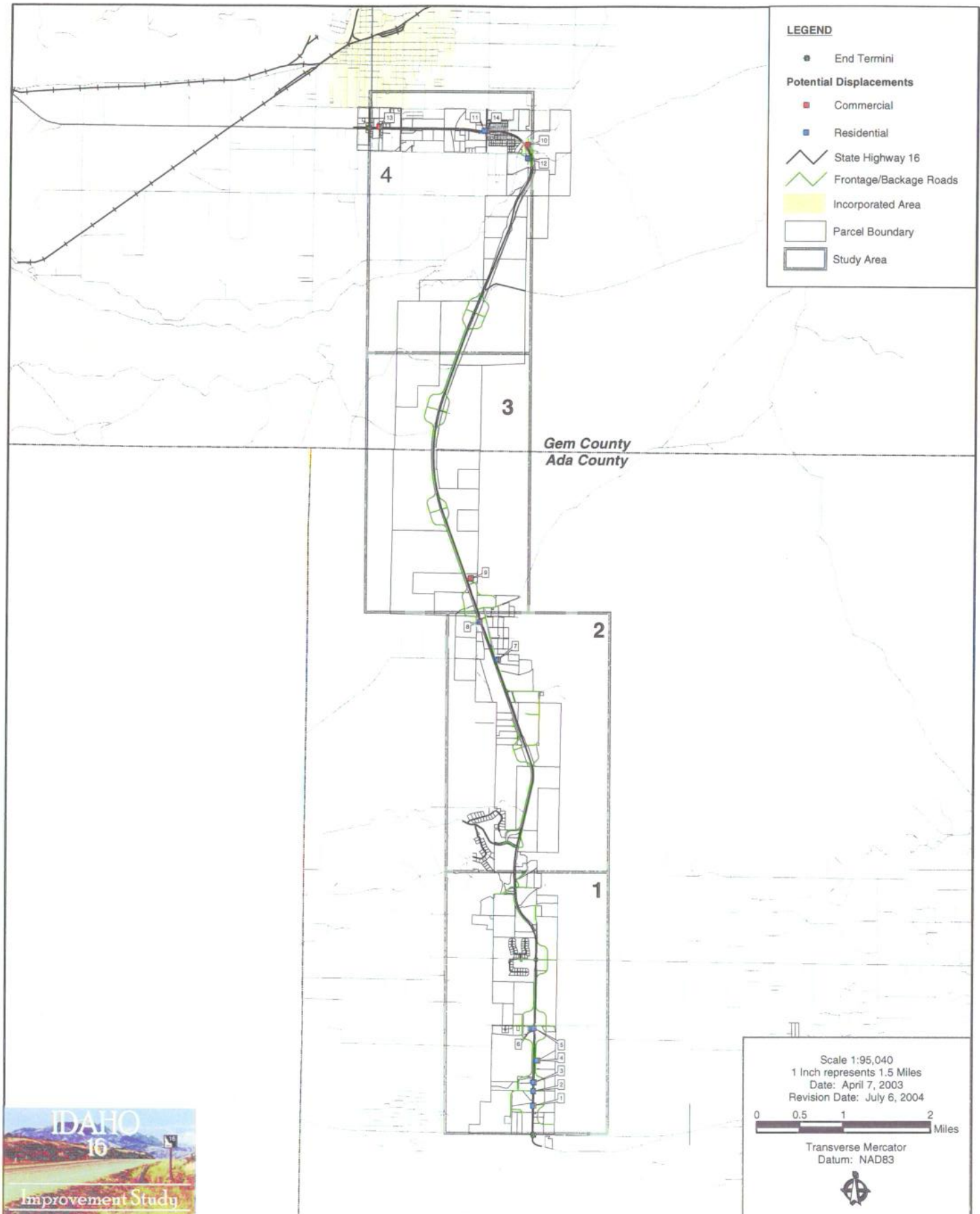
## Impacts During Construction

The project will displace 11 residential and 3 commercial buildings and their associated land will be acquired as new ROW. Properties indicated in table 15 and on figures 23 through 27 only involve displacements. Tables 12 and 13, in Land Use, show overall project ROW needs.

<b>Table 15</b> <b>Potential Displacements for Idaho 16 Improvement Study</b>		
<b>Ownership</b>	<b>Property Description</b>	<b>Stationing (Mile Post)</b>
1. Craig Thomson	Single Family residence	0.4
2. Revels Family Trust	Single Family residence	0.5
3. Stephen Hoyt	Single Family residence	0.55
4. Bradley Thornton	Single Family residence	1.1
5. Jack Jones	Single Family residence	1.2
6. Hoot Nanney Farms	Single Family residence	1.3
7. James Henry	Single Family residence	5.4
8. Mitchell Wieland	Single Family residence	6.2
9. Winners Circle Horse	Commercial: Roadside Tavern	7.2
10. Sands Orchards	Commercial: House and Fruit Stand	11.8
11. Walter Clements	Single Family residence	12.5
12. Sands Orchards	Residential House	11.5
13. Scott Desind	Commercial: Service Station	13.75
14. Steve Mednicoff	Single Family residence	12.5
Note: The numbers shown next to each owner correspond to figures 23 through 27.		

## Impacts During Operation

There will be no impacts during operation.



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**Figure 23:**  
**Displacements**  
*Idaho 16 Improvement Study*



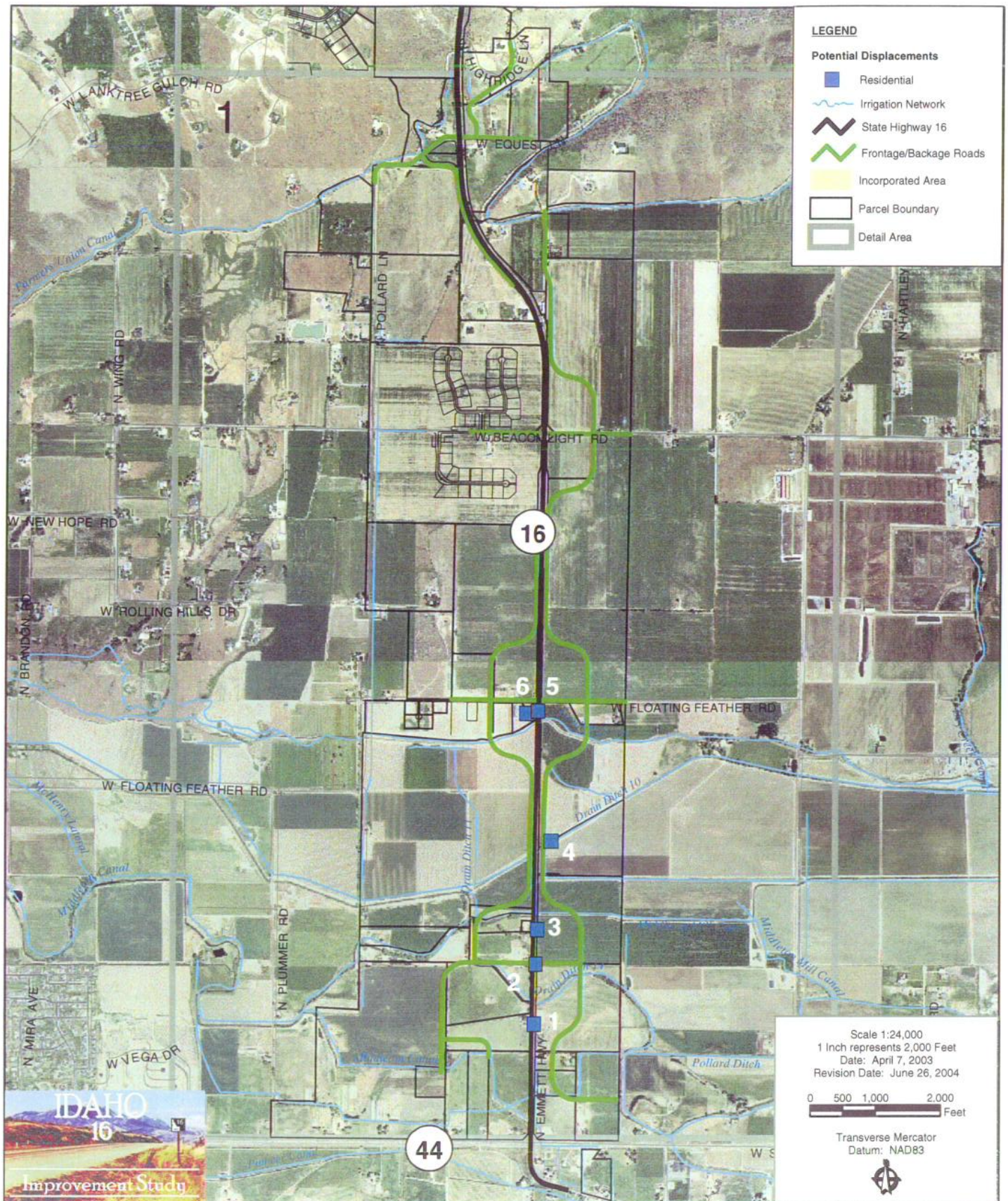


Figure 24:  
Displacements - Detail Area 1  
Idaho 16 Improvement Study

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Figure 25:  
Displacements - Detail Area 2  
*Idaho 16 Improvement Study*

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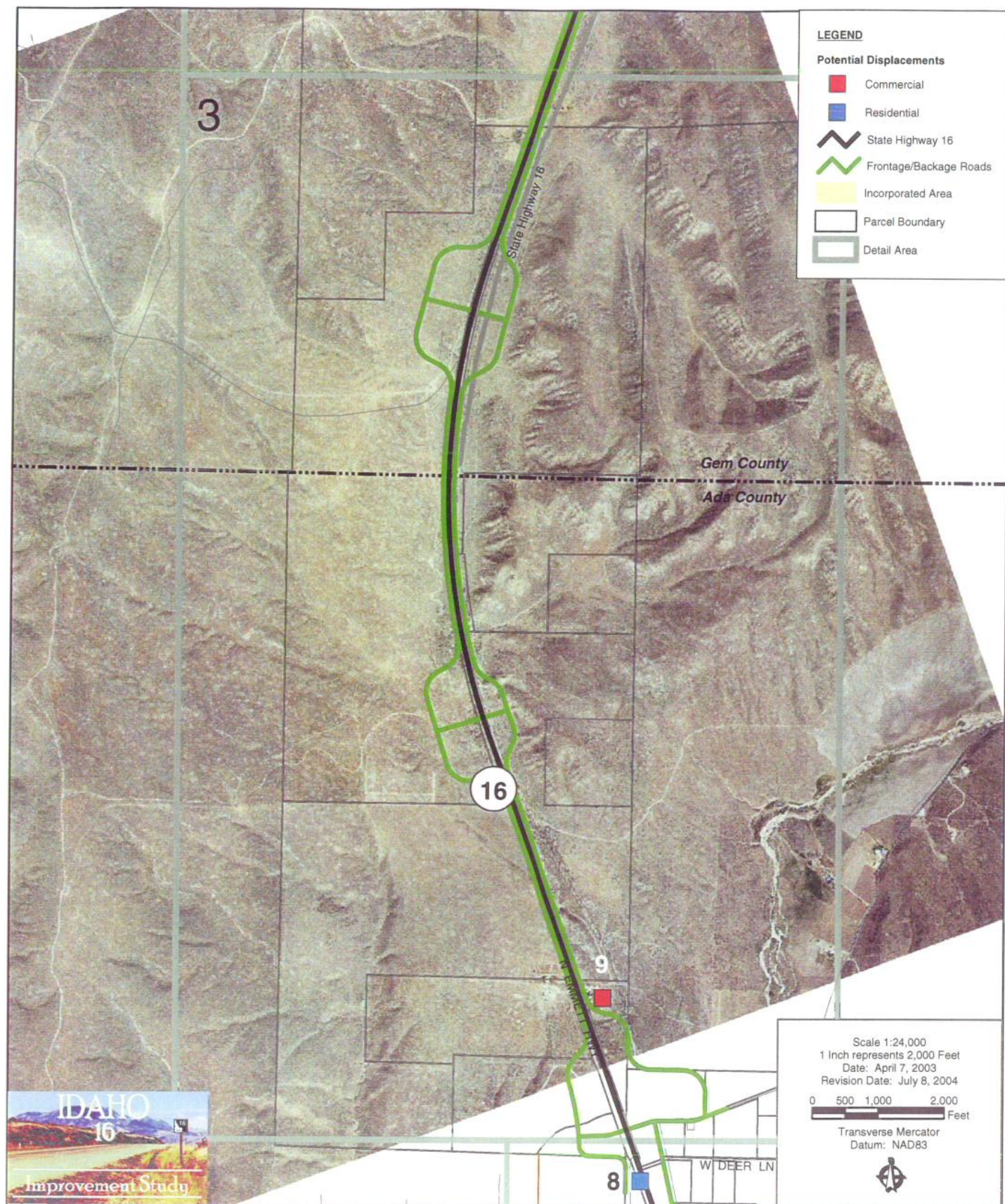


Figure 26:  
Displacements - Detail Area 3  
*Idaho 16 Improvement Study*

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**Figure 27:**  
**Displacements - Detail Area 4**  
*Idaho 16 Improvement Study*

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## Cultural Resources

### *Studies and Coordination*

Previous archaeological/historic studies for past projects within a one mile radius of Idaho 16 were located and evaluated (Mauser 2003 and Peterson 2002). Records were searched at the Idaho State Historic Preservation Office, BLM, Idaho State Historical Library, and Boise Public Library. Records of 28 archaeological and/or historic sites within 0.5 mile of Idaho 16 were found (Mauser 2003).

### *Methodology*

Field methods were designed to achieve a systematic intensive level of survey to locate and delineate archaeological resources observable using surface survey techniques (Mauser 2003). Archaeological resources were documented per Idaho State Historic Preservation Office (SHPO) requirements and recorded information included age, function, context, and integrity. Recorded data were used to evaluate significance without subsurface testing. A pedestrian survey was conducted in parallel transects at 30-meter intervals (Mauser 2003).

### *Affected Environment*

A total of 32 archaeological and/or historic sites were reviewed in the project corridor (Mauser 2003) to determine eligibility for the National Register of Historic Places (NRHP). Eleven resources (figures 28 and 29) were determined to be eligible (ITD/SHPO 2003):

- Middleton/Middleton Mill Canal System
- Pollard Ditch
- Drainage Ditch 11, District 2
- Farmer's Union Canal
- Last Chance Canal
- Girdner and Jones Ranch
- Drainage Ditch 10, District 2
- Foothill Ditch
- Mossman/Revels Farmstead
- Mossman Farmstead
- Liberty Grange

These resources were recommended as eligible because they are characteristic of the late 1800 to early 1900 agricultural development of Treasure Valley.

In addition, potential impacts to three other NRHP resources in the area were considered. However, these three resources were found not to be eligible because they were not intact and were considered noncontributing elements to the NRHP site (Mauser 2003).

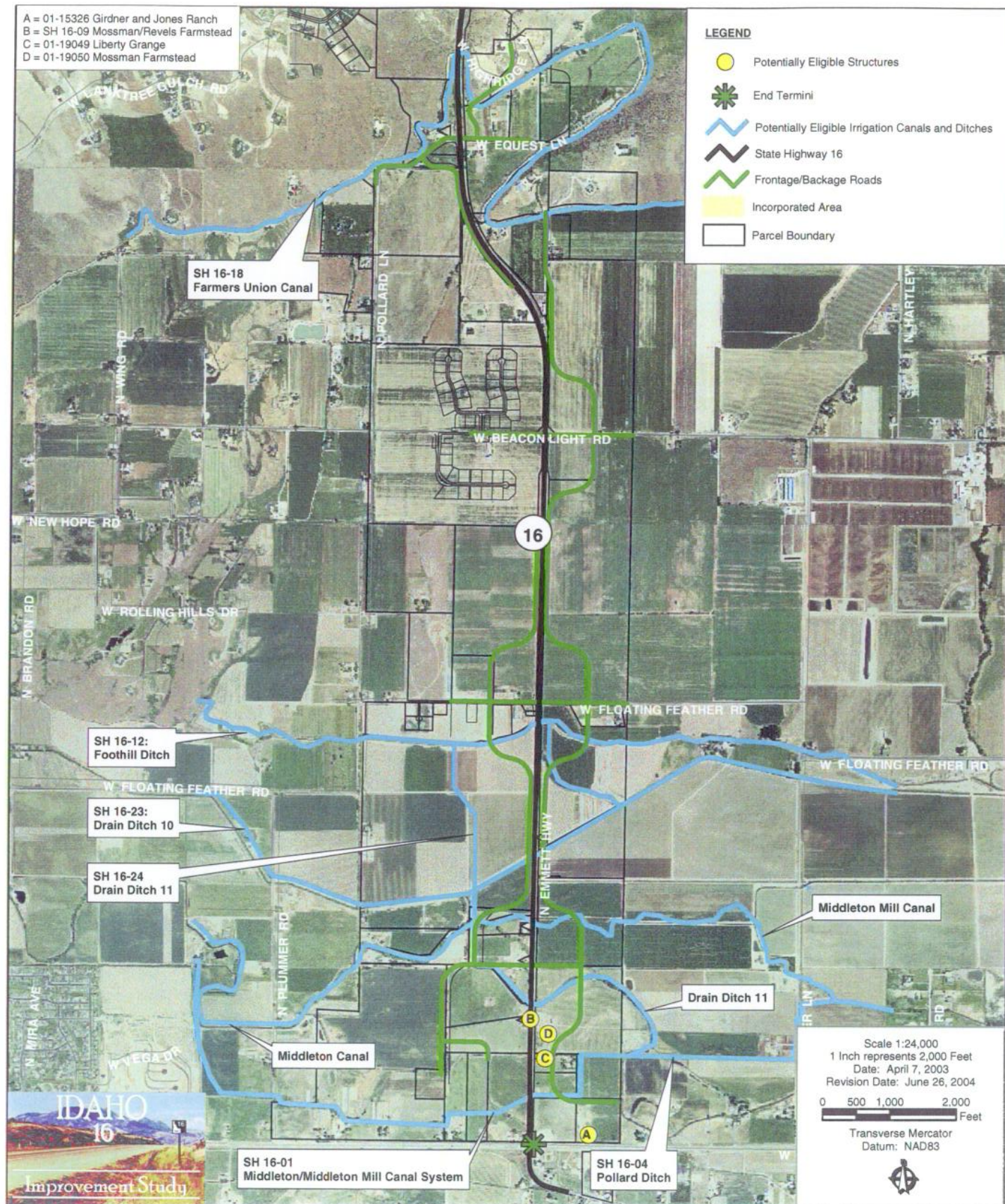


Figure 28:  
Properties Eligible for the National Register  
of Historic Places - Mile Post 0.0 to 3.0

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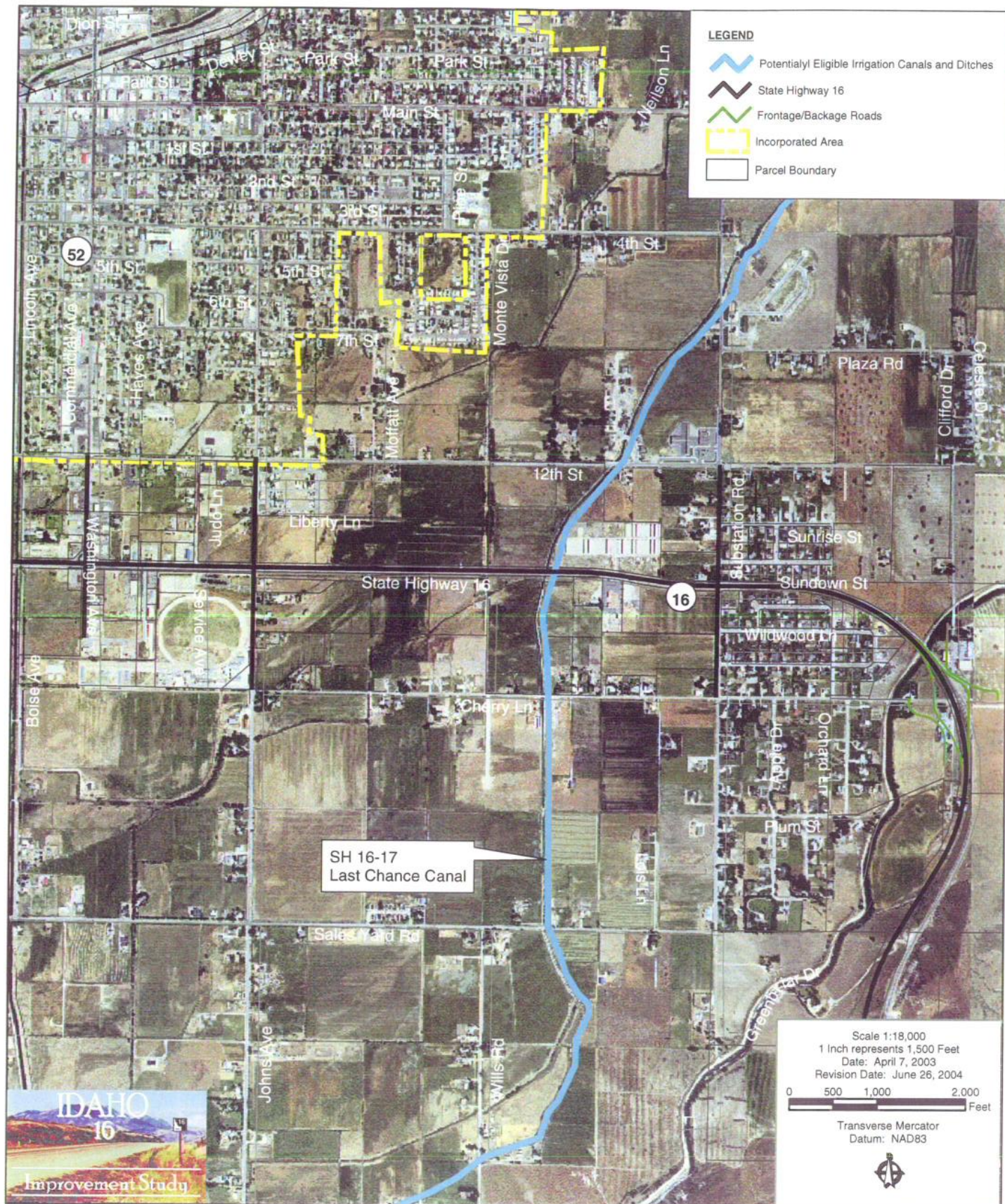


Figure 29:  
Properties Eligible for the National Register  
of Historic Places - Mile Post 11.0 to 13.9

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## Impacts During Construction

Table 16 summarizes impacts to the NRHP resources.

<p style="text-align: center;"><b>Table 16</b> <b>Summary of Cultural Resource Impacts and Determinations of Effect</b></p>		
<b>Resource</b>	<b>Impacts</b>	<b>Determination</b>
Pollard Ditch	Extend crossing at Idaho 16 and construct one new frontage/backage road crossing.	No effect
Drainage Ditch 11, District 2	Extend crossing at Idaho 16 and construct two new frontage/backage road crossings. Relocate 400 feet of canal for frontage/backage road crossing.	No effect
Middleton/Middleton Mill Canal System	Extend crossing at Idaho 16 and construct two new frontage/backage road crossings.	No effect
Drainage Ditch 10, District 2	Extend crossing at Idaho 16 and construct two new frontage/backage road crossings.	No effect
Foothill Ditch	Extend crossing at Idaho 16 and construct two new frontage/backage road crossings.	No effect
Farmers' Union Canal	Extend crossing at Idaho 16 and construct one new frontage/backage road crossings. Construct 410 feet of culvert extension.	No adverse effect
Black Canyon Canal	Extend crossing at Idaho 16 and construct two new interchange ramp crossings.	No adverse effect
Last Chance Canal	Extend crossing at Idaho 16.	No effect
Girdner & Jones Ranch	ROW along SH 44.	No effect
Liberty Grange	ROW along Idaho 16.	No effect
Mossman Farmstead	ROW along Idaho 16.	No effect
Mossman/Revels Farmstead	Removal of an existing modern residence. ROW along Idaho 16.	No adverse effect

## Impacts During Operation

It was determined that the identified resources will not be impacted, since the portions within the Area of Potential Effect (which corresponds to the screening corridor described in Alternatives Considered but Rejected) for Idaho 16 are non-contributing elements. These determinations were supported by ITD and SHPO (Correspondence and Supporting Documentation).

## Hazardous Materials

### *Studies and Coordination*

An Initial Site Assessment (ISA) was performed to identify and investigate sites within a 2-mile radius of the project that currently or historically have had the potential to adversely impact the project site through releases of hazardous substances to the surface, the subsurface, or groundwater (Entranco 2002). This study reviewed published documentation, city and county records, engineering plans, and environmental databases.

### *Methodology*

A variety of hazardous waste databases were collected and reviewed to screen potential sites within a 2-mile radius of Idaho 16. In addition, staff interviewed City officials, business owners, and private property owners of identified sites of concern. Site visits were conducted and photographs were taken (Entranco 2002).

### *Affected Environment*

An Initial Site Assessment was prepared for this project (Entranco 2002). A total of 13 suspected hazardous waste sites were evaluated (list of sites in table 18). Only one site—the Emmett Chevron—was identified as a site where contaminants might be present in subsurface soils and groundwater. This contaminant plume is currently being cleaned up by IDEQ. The plume has migrated under the existing alignment of Idaho 16 and is nearly perpendicular to the alignment. It has not yet been determined whether these efforts will remove the contaminant plume. These sites are shown on table 17 and figures 30 and 31.

### *Impacts During Construction*

Of the potential hazardous waste sites, only the Emmett Chevron was identified as having likely contamination of subsurface soils and groundwater. New ROW will be required on the south and west sides of this property and a Preliminary Site Investigation (Type II investigation) will be done prior to completing final design to determine the presence and extent of impacts within existing and proposed new ROW (ITD 2004). The site poses a risk because:

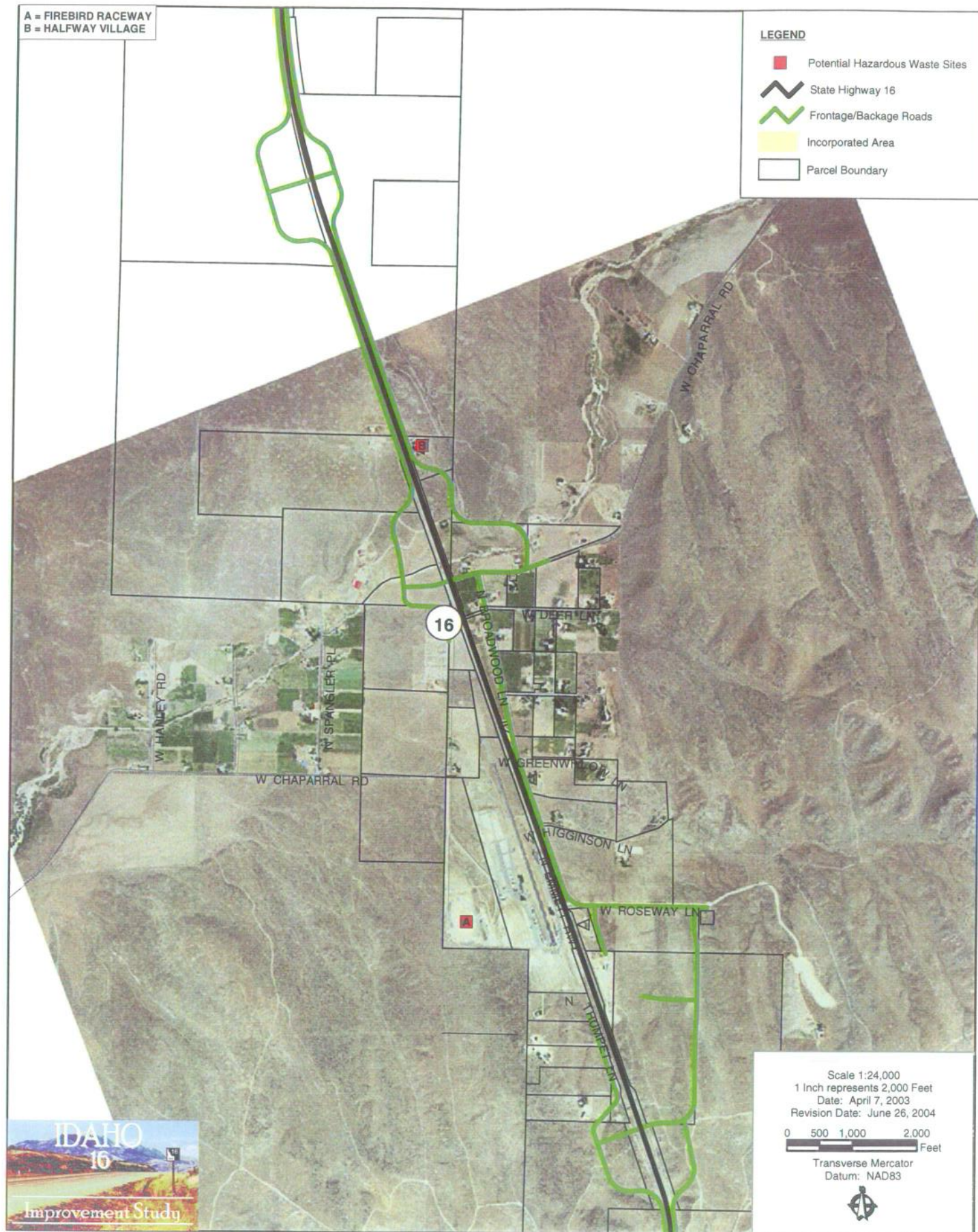
- ♦ Subsurface contaminants may be present in soil and groundwater beneath Idaho 16 in concentrations that could cause a hazardous condition for site workers. In addition, contaminated soils could contaminate receiving waters, groundwater, or off-site soils if not properly handled and disposed.
- ♦ Subsurface contaminants may cause excavated soils to be classified as “hazardous waste”, requiring special handling during construction.
- ♦ If any ROW is acquired in contaminated areas, ITD should be aware of the impacts and potential liabilities that ownership of such property may invoke.

**Table 17**  
**Potential Hazardous Waste Sites Evaluated**

Code <sup>1</sup>	Site Name/Address <sup>2</sup>	MP (Side) <sup>3</sup>	Reason for Listing <sup>4</sup>	Source <sup>5</sup>	Risk <sup>6</sup>
A	Firebird Raceway P.O. Box 1398 Eagle, ID	5.5 W	Competitive Racing Facility - Fueling?	R, I	2
B	Halfway Village 10570 Idaho 16 Eagle, ID	6.8 E	Bar, RV Park - Former Fueling?	R, I	2
C	Sanders Farm Market 2990 East 12th Street Emmett, ID	12.0 E	Commercial Produce Processing - Fueling?	R, I	2
D	USDA Service Center 900 East Idaho 16 Emmett, ID	12.8 S	Government Offices - Fueling?	R, I	2
E	Emmett Valley Equip. Rental 444 Idaho 16 Emmett, ID	13.7 N	Equipment Rental - Fueling, Maint. Waste	R, I	2
F	Thomas Motors (Chrysler-Dodge) 2121 Service Avenue Emmett, ID	13.8 S	Auto Dealership, Fueling, Body Shop Wastes?	R, I	2
G	Timbers Inn (Scott Drive-In) 300 Idaho 16 Emmett, ID	13.8 N	Restaurant, Former Grocery - Fueling?	R, I	2
H	Emmett Chevron (Jarmin's Sinclair) 1580 S. Washington Avenue Emmett, ID	14.0 N	Current & Former Service Station, Lust Site	R, I, D, H	5
I	Geriken's Restaurant 2001 S. Washington Avenue Emmett, ID	14.1 S	Current Restaurant	R, I	2
J	Maverik #212 110 West SH 52 Emmett, ID	14.1 N	Current Service Station	R, I, D	4
K	Lube One 1575 S. Washington Avenue Emmett, ID	14.1-200 ft. N	Current Auto Service	R, I	3
L	LOC Auto Care (NAPA) 1550 S. Washington Avenue Emmett, ID	14.0-200 ft. N	Current Auto Service	R, I	3
M	Texaco/Scoggins Food Mart 1340 S. Washington Avenue Emmett, ID	14.0-200 ft. N	Current Auto Service	R, I, D	4

1. Sites are shown on figures 30 and 31.
2. Current site name is used (prior site name in parentheses)
3. Milepost according to State Mile Post System (accurate to 0.10 mile). Side of road indicated as if traveling north.
4. Indicates primary information sources for listing: R=Reconnaissance, I=Interview, D=Database, H=Historical Documentation
5. Risk Rank: 1=Lowest risk of hazardous materials impacts, 5=Highest risk of hazardous materials impacts





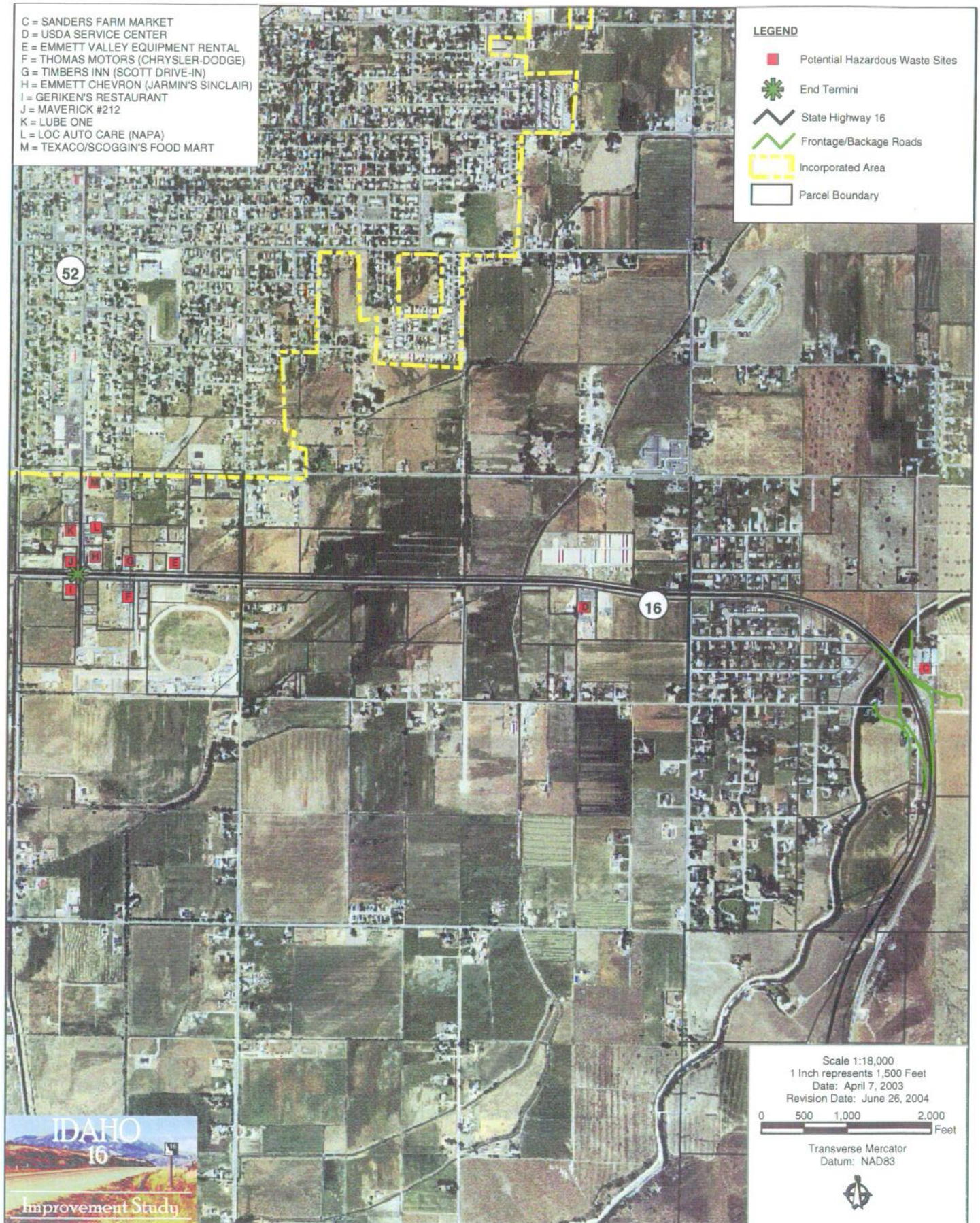
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**Figure 30:**  
**Potential Hazardous Waste Sites**

*Idaho 16 Improvement Study*





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Figure 31: Potential Hazardous Waste Sites

Idaho 16 Improvement Study



Also, accidental spills of chemicals and other hazardous materials during construction could occur. Such chemicals and materials may include wet concrete, concrete wash water, gasoline, diesel fuel, oil, grease, radiator fluids, hydraulic fluids, solvents and degreasers, tar and tar oils used in paving, and paint and related chemicals. If these are spilled on the ground or in streams or irrigation canals, they have the potential to adversely affect surface waters, soils, and groundwater in the study area.

## *Impacts During Operation*

Hazardous waste contamination could potentially result from traffic accidents that have spills of gasoline, oil, radiator fluid, brake fluid and/or hydraulic fluid and/or associated spills of hazardous substances carried in trucks or other transport vehicles. Impacts may also occur from spills of hazardous chemicals used in roadway or roadside vegetation maintenance.

## **Visual Quality** *Studies and Coordination*

The visual changes in the corridor will be largely the result of increasing urbanization and changes to the landscape due to residential and commercial development. Public and agency comments received during alternative screening identified areas likely to be developed and what types of developments were planned. Both residences and local agencies identified challenges with the planned access needed to support development. As part of noise mitigation for the Idaho 16 project, a noise wall is being considered for an existing residential neighborhood in Emmett. During the public hearing process later this year, public comment will be solicited as to whether or not the residents want a noise wall, and if so, what visual quality and aesthetic design attributes will be provided.

## *Methodology*

The Visual Impacts – Light and Glare section of the Idaho Transportation Department Environmental Process Manual (reference) was used as the technical basis for performing this analysis. The visual quality assessment was based on site visits, ground photographs, aerial photographs, a review of preliminary plans, and review of the public involvement records. The noise mitigation proposed for this project was also evaluated.

Seven viewpoints were selected along the Idaho 16 corridor. Each viewpoint considered two different views. Figure 32 shows the viewpoint locations. Table 18 describes these locations briefly.



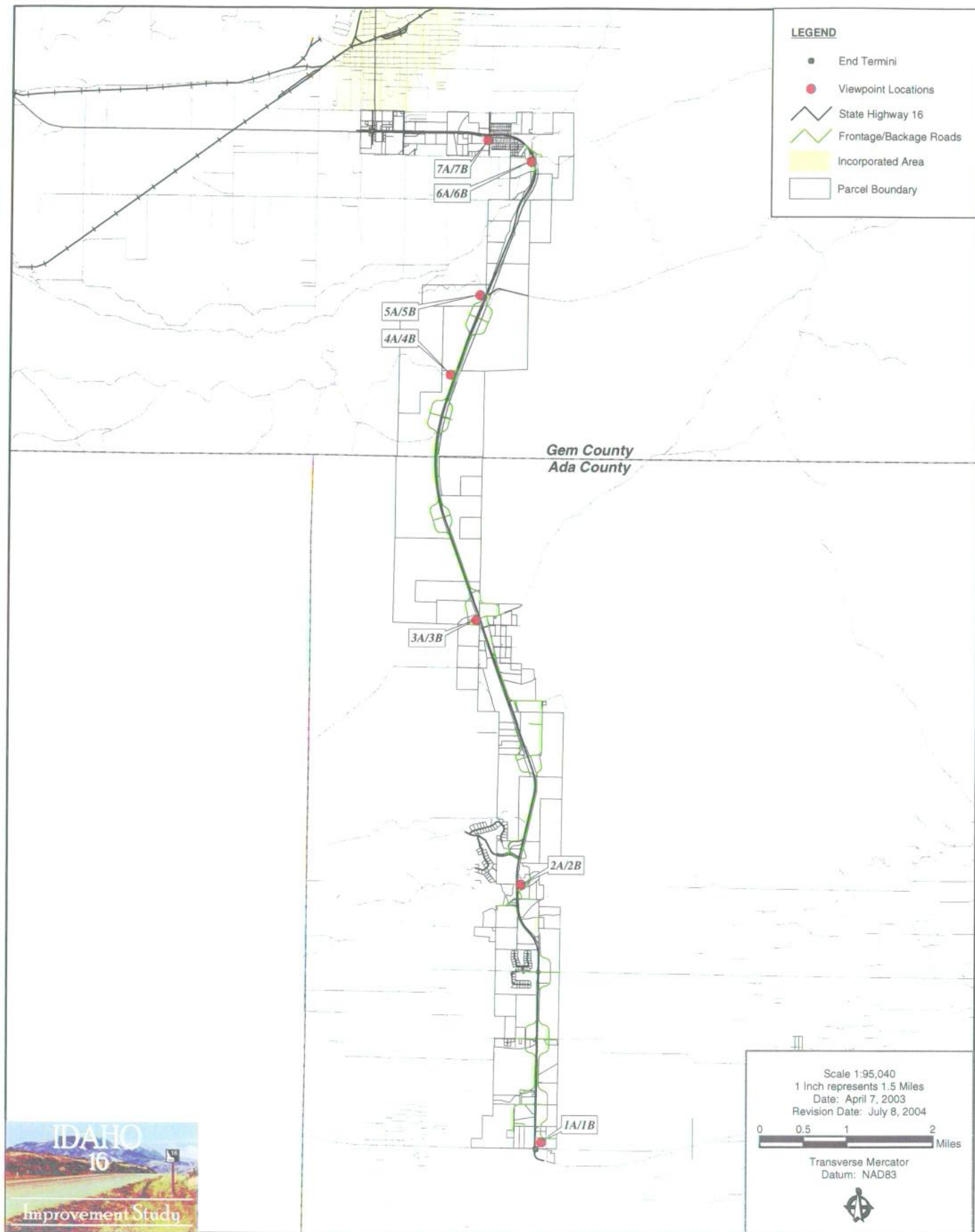
**Table 18**  
**Description of Viewpoints**

Viewpoint Number	Location	Existing View	Impact Evaluated
1A	MP 0.0 Idaho 16/SH 44 Intersection	<ul style="list-style-type: none"> <li>Idaho 16 looking southwest toward SH 44 intersection</li> </ul>	<ul style="list-style-type: none"> <li>Impact of wider roadway on travelers</li> </ul>
1B	MP 0.0 Idaho 16/SH 44 Intersection	<ul style="list-style-type: none"> <li>View southwest from field toward Idaho 16/SH 44 intersection</li> </ul>	<ul style="list-style-type: none"> <li>Impact of wider roadway from perspective of adjacent landowner</li> </ul>
2A	MP 3.3 Near Farmer's Union Canal Crossing	<ul style="list-style-type: none"> <li>Farmer's Union Canal and ridgeline residential development</li> </ul>	<ul style="list-style-type: none"> <li>Relocation of canal and additional future residential development</li> </ul>
2B	MP 3.25 near Farmer's Union Canal	<ul style="list-style-type: none"> <li>Territorial view looking toward road</li> </ul>	<ul style="list-style-type: none"> <li>Impact on territorial view</li> </ul>
3A	MP 6.5 at Willow Creek Crossing	<ul style="list-style-type: none"> <li>Bridge over Willow Creek</li> </ul>	<ul style="list-style-type: none"> <li>Impact on bridge over Willow Creek</li> </ul>
3B	MP 6.7 just north of Willow Creek Crossing	<ul style="list-style-type: none"> <li>Territorial view of Willow Creek from Idaho 16</li> </ul>	<ul style="list-style-type: none"> <li>Territorial view of Willow Creek from Idaho 16</li> </ul>
4A	MP 9.25 at Jackass Gulch Creek Crossing	<ul style="list-style-type: none"> <li>View of Idaho 16 and adjacent hillsides at Jackass Gulch crossing</li> </ul>	<ul style="list-style-type: none"> <li>View of Idaho 16 and adjacent hillsides near Jackass Gulch</li> </ul>
4B	MP 9.25 at Jackass Gulch	<ul style="list-style-type: none"> <li>View of Jackass Gulch and adjacent hillsides</li> </ul>	<ul style="list-style-type: none"> <li>View of Jackass Gulch and adjacent hillsides</li> </ul>
5A	MP 11.0 at Freezeout Hill Lookout	<ul style="list-style-type: none"> <li>Territorial view to the north toward Emmett</li> </ul>	<ul style="list-style-type: none"> <li>Territorial view to the north toward Emmett</li> </ul>
5B	MP 11.0 at Freezeout Hill Lookout	<ul style="list-style-type: none"> <li>View of Idaho 16 and adjacent cut slope from Freezeout Hill lookout</li> </ul>	<ul style="list-style-type: none"> <li>View of Idaho 16 and adjacent cutslope from Freezeout Hill lookout</li> </ul>
6A	MP 12.0 at Idaho 16 and Cherry Lane	<ul style="list-style-type: none"> <li>View of Idaho 16 and Cherry Lane intersection looking south</li> </ul>	<ul style="list-style-type: none"> <li>Impact of new interchange</li> </ul>
6B	MP 12.0 at Idaho 16 and Cherry Lane	<ul style="list-style-type: none"> <li>View of Idaho 16 at Cherry Lane looking north</li> </ul>	<ul style="list-style-type: none"> <li>Impact of new interchange</li> </ul>
7A	MP 12.5 in Emmett	<ul style="list-style-type: none"> <li>View of Idaho 16/Substation Road intersection</li> </ul>	<ul style="list-style-type: none"> <li>Impact of new noise wall</li> </ul>
7B	MP 12.25 in Emmett	<ul style="list-style-type: none"> <li>View of residence</li> </ul>	<ul style="list-style-type: none"> <li>Impact of new noise wall</li> </ul>

## Visual Quality

Visual quality is defined by the degree of vividness, intactness, and unity:

- ♦ **Vividness** – Those features in a landscape that create a distinctive visual impression by having a high degree of contrast in line, form, color, and texture. Four elements of vividness (land form, water form, vegetative form, and manmade form) may be present and/or affect the landscape. The amount of these features affect whether vividness is rated high, moderate, or low.
- ♦ **Intactness** – The visual integrity of the natural and manmade landscape and the encroachment of visually unpleasing elements. The number of unpleasing elements affect whether intactness is rated high, moderate, or low.
- ♦ **Unity** – The visual coherence and compositional harmony of the landscape considered as a whole. Distracting elements that do not fit in with the whole, affect whether unity is rated high, moderate, or low.



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**Figure 32:  
 Viewpoint Locations**  
*Idaho 16 Improvement Study*

## Landscape Units

Five landscape units were identified within the overall project viewshed:

- ♦ Boise River Valley and associated farmlands, irrigation canals, streams, and adjacent hillsides.
- ♦ Willow Creek Valley and adjacent hillsides.
- ♦ Jackass Gulch and surrounding hillsides.
- ♦ Freezeout Hill and surrounding hillside and territorial views.
- ♦ Payette River Valley, the City of Emmett, associated farmlands, and irrigation canals.

## Physical and Physiological Factors

A viewer's response depends not only on the surrounding area's visual quality and character, but also on these physical and physiological factors:

- ♦ **Viewer Distance** – The distance at which an area is viewed influences what can be seen and the view's panoramic quality. Views can be divided into foreground, middleground, and background. These are established by using distinguishable landscape details. Foreground views are 0 to 500 feet, with clearly distinguishable features. Middleground views are 500 feet to one-half mile, with broadly distinguishable features. Background views are one-half mile and beyond, with no individually distinguishable features.
- ♦ **Duration of View** – The speed at which a motorist, cyclist, or pedestrian travels and therefore the duration at which the project area is viewed.
- ♦ **Viewer Position** – The viewer's relative position above or below the project. For example, is the viewer on a hill overlooking the corridor?
- ♦ **Viewer Activity** – The viewer's activity often determines their sensitivity to the surrounding views. For example, a person using a park is usually more sensitive to visual degradation than a person within an industrial setting.
- ♦ **Number of Viewers** – The relative number of viewers is important to consider when evaluating the visual quality of a project area. Residential developments may be sensitive areas because many people view the road for relatively long periods.

All these factors are used when evaluating visual quality impacts. For example, impacts to foreground views would be greater than changes to background views. Also, temporary physical factors influence the viewer's perception, such as changes in light during the day or seasonal effects on lighting and vegetation.

## Affected Environment

Idaho 16 is an important transportation corridor connecting the communities of Star and Eagle along SH 44 with the community of Emmett and SH 52 to the north. Affected viewers include



the traveling public, local farmers and ranchers who live along Idaho 16, business owners located along corridor, residents of newer hillside residential communities, and residents and business owners in Emmett. The following sections describe the viewpoints. Table 19 summarizes the degree of vividness, intactness, and unity of each viewpoint.

<p><b>Table 19</b> <b>Matrix of Vividness, Intactness and Unity for Existing Conditions</b></p>				
<b>Viewpoint</b>	<b>Location</b>	<b>Vividness</b>	<b>Intactness</b>	<b>Unity</b>
1A	MP 0.0 Idaho 16/SH 44 Intersection	Moderate	Low	Moderate
1B	MP 0.0 Idaho 16/SH 44 Intersection	High	Moderate	Moderate
2A	MP 3.3 at Farmer's Union Canal	Moderate	Low	Low
2B	MP 3.25 at Farmer's Union Canal	High	High	High
3A	MP 6.5 at Willows Creek Crossing	Low	Low	Low
3B	MP 6.7 just north of Willows Creek crossing	Moderate	Moderate	Moderate
4A	MP 9.25 at Jackass Gulch crossing	Moderate	Moderate	Moderate
4B	MP 9.25 at Jackass Gulch crossing	High	High	High
5A	MP 11.0 at Freezeout Hill Lookout	High	High	High
5B	MP 11.0 at Freezeout Hill Lookout	Moderate	Moderate	Moderate
6A	MP 12.0 at Idaho 16/Cherry Lane intersection	Moderate	Moderate	Moderate
6B	MP 12.0 at Idaho 16/Cherry Lane intersection	Moderate	Moderate	Moderate
7A	MP 12.5 in Emmett	Moderate	Moderate	Moderate
7B	MP 12.25 in Emmett	Moderate	Moderate	Moderate

## Viewpoints 1A and 1B

Viewpoints 1A and 1B (photographs 1 and 2) are located at MP 0.0 at the intersection of Idaho 16 and SH 44. Viewpoint 1A looks southwest toward the road. In the foreground, the shoulder and pavement conditions dominate the view. A highway sign and an existing residence with associated trees can also be seen. A pickup truck, dump truck and the traffic signal are visible at the far left. Viewpoint 1B looks southwest across a wheat field toward the intersection with SH 44. The wheat field dominates the foreground from this viewpoint. The intersecting highways and associated development around the intersection form a definitive linear horizontal feature across the middleground.



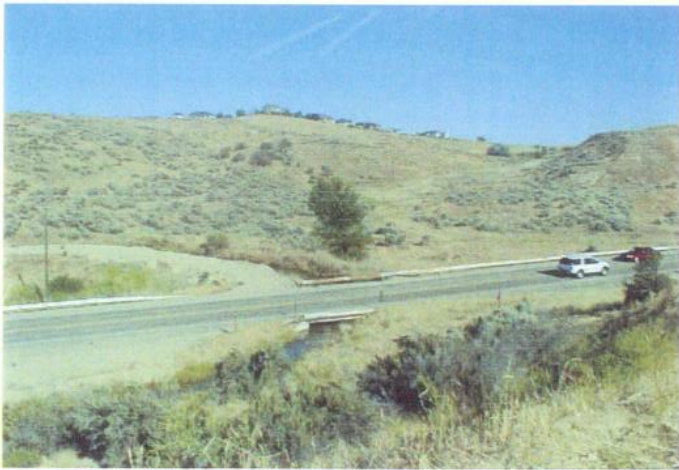
**Photograph 1: Viewpoint 1A at MP 0.0. Idaho 16 looking southwest toward SH 44**



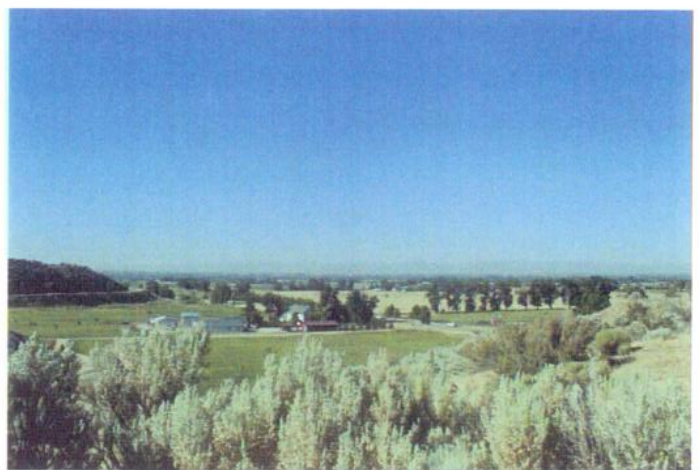
**Photograph 2: Viewpoint 1B at MP 0.0. From east of Idaho 16, looking southwest toward intersection with SH 44**

## Viewpoints 2A and 2B

Viewpoints 2A and 2B (photographs 3 and 4) are located at MP 3.3 and MP 3.25, respectively. Viewpoint 2A shows Idaho 16 in the middleground along with the crossing of Farmer's Union Canal. Sagebrush-steppe vegetation dominates the foreground and the slopes of the hillsides on the opposite side of Idaho 16 occupy the middleground. Newer residential development is visible along the ridgeline in the background. Viewpoint 2B provides a territorial view of the Boise River Valley looking southwest across Idaho 16. Sagebrush-steppe vegetation dominates the foreground and a pleasant farmland panorama represents the middleground.



**Photograph 3: Viewpoint 2A at MP 3.3. Looking northwest of Farmer's Union Canal crossing toward residential development along ridgeline.**



**Photograph 4: Viewpoint 2B at MP 3.25. Territorial view looking southwest across Idaho 16.**

## Viewpoints 3A and 3B

Viewpoint 3A (photograph 5) is located at MP 6.5 at the Willow Creek Bridge crossing. The view looks northwest across the bridge and dry creek bed. The bridge and the highway dominate the view. Viewpoint 3B (photograph 6) is located at MP 6.7 looking southwest.



Guard rail along the shoulder of Idaho 16 dominates the foreground. Willow Creek appears as a long dark linear horizontal feature in the middleground. Farmsteads and fence lines are visible in the middleground and background.



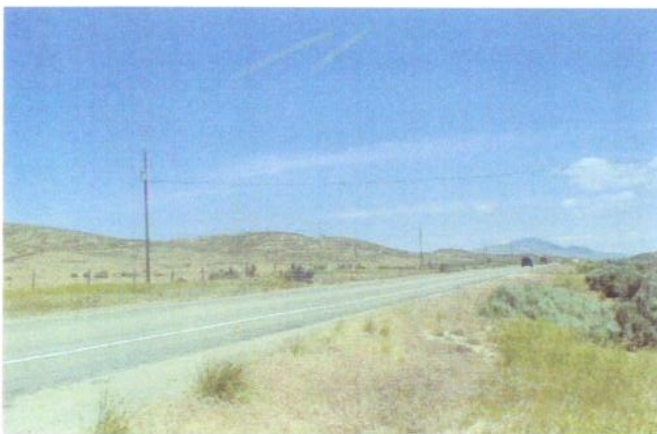
**Photograph 5: Viewpoint 3A at MP 6.5. Looking northwest across bridge at Willow Creek.**



**Photograph 6: Viewpoint 3B at MP 6.7. Territorial view of Willow Creek looking southwest.**

## **Viewpoints 4A and 4B**

Viewpoints 4A and 4B (photographs 7 and 8) are located at MP 9.25 at the Jackass Gulch crossing. Viewpoint 4A looks north out onto the highway. Grasses and wildflowers dominate the foreground, the highway dominates the middleground, and the foothills and Emmett Butte appear in the background. Viewpoint 4B looks east from the highway toward an old gate and fence. Sagebrush-steppe vegetation and hawthorn trees also appear in the middleground. Rolling hills appear in the background.



**Photograph 7: Viewpoint 4A at MP 9.25. Looking north toward Idaho 16 and adjacent hills at Jackass Gulch crossing**



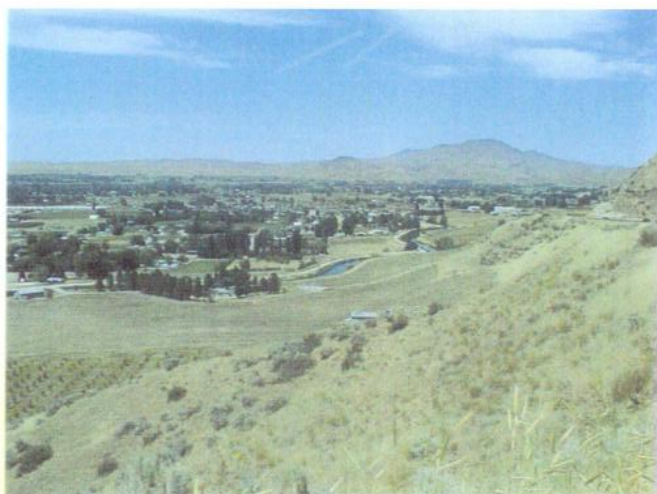
**Photograph 8: Viewpoint 4B at MP 9.25. Looking east at Jackass Gulch crossing. Jackass Gulch is just visible on the far left.**

## **Viewpoints 5A and 5B**

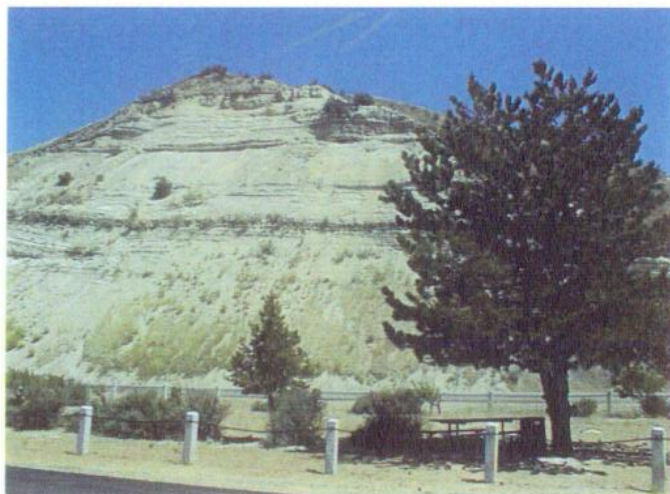
Viewpoints 5A and 5B (photographs 9 and 10) are located at MP 11.0, the Freezeout Hill Lookout. The Lookout is a paved crescent-shaped roadway that allows travelers to turn off



Idaho 16 and take in the regional panorama from Freezeout Hill. Viewpoint 5A looks north over the Payette River Valley, Black Canyon Canal (middleground), Emmett (trees, houses, buildings), and Emmett Butte on the horizon (background). Idaho 16 is visible to the far right. Viewpoint 5B looks east across the Lookout guard rail and picnic area, across Idaho 16 (middleground) and beyond to the largest roadway cut along the entire corridor. The roadway cut and the medium-sized evergreen tree on the right dominate this view.



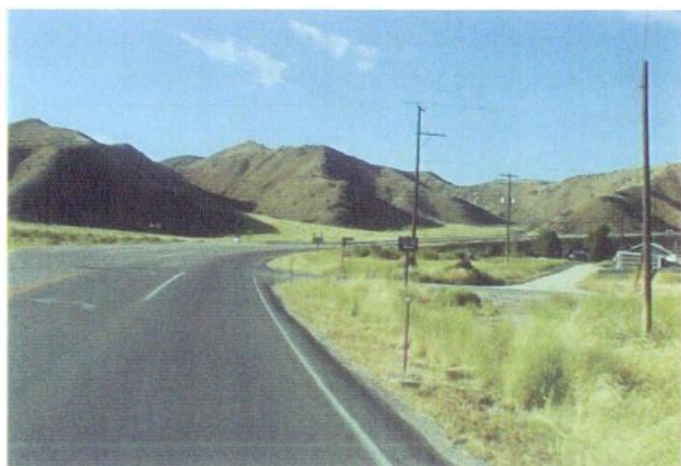
**Photograph 9: Viewpoint 5A at MP 11.0. Looking north toward Emmett from Freezeout Hill Lookout.**



**Photograph 10: Viewpoint 5B at MP 11.0. Looking east with partial view of Freezeout Hill Lookout and major cut slope.**

## Viewpoints 6A and 6B

Viewpoints 6A and 6B (photographs 11 and 12) are located at MP 12.0. Viewpoint 6A looks south toward Freezeout Hill. The Idaho 16/Cherry Lane intersection is visible in the middleground. Viewpoint 6B looks north along the highway, which dominates this view. Emmett Butte is visible in the background.



**Photograph 11: Viewpoint 6A at MP 12.0. Looking south of Idaho 16/Cherry Lane intersection.**



**Photograph 12: Viewpoint 6B at MP 12.0. Looking north along Idaho 16 from intersection with Cherry Lane.**



## Viewpoints 7A and 7B

Viewpoints 7A and 7B (photographs 13 and 14) are in Emmett at MP 12.5 and MP 12.25 respectively. Viewpoint 7A looks northwest across the Idaho 16/Substation Road intersection. Idaho 16 dominates the middle ground and automobiles and large residential trees appear beyond the highway. Viewpoint 7B looks north. Idaho 16 dominates the foreground view, and an existing residence, associated trees, a grassy field, and Emmett Butte are visible on the north side of the highway.



**Photograph 13: Viewpoint 7A at MP 12.5.**  
Looking northwest of the Idaho 16/Substation Road intersection.



**Photograph 14: Viewpoint 7B at MP 12.25.**  
Looking north across Idaho 16 at the most easterly residence (far left side of photo).

## Impacts

### Impacts During Construction

Temporary negative visual quality impacts will be expected at each viewpoint during construction of the phases of the Idaho 16 improvements. Sources of view degradation during construction would include heavy equipment, construction materials, staging areas, stockpiles of fill and excavated materials, and piles of debris associated with demolition activities. Overall, construction will affect a total of 400 acres.

Impacts will be more visible at intersections where frontage and backage roads will be constructed, at the location of the new grade-separated interchange at Idaho 16 and Cherry Lane (viewpoint 6A), and at the proposed noise wall near Idaho 16 and Substation Road (viewpoint 7A). A typical view of construction impacts is shown in photograph 15. This photograph documents typical construction activities that will affect views and was taken near MP 10.75 where the Firebird Raceway Passing Lanes project is under construction. The foreground is dominated by bare ground exposed by grading. Reflector barrels are visible on the shoulder. The background views of green hillsides is unaffected. Vividness, intactness, and unity will all be adversely affected.





**Photograph 15: View at MP 3.5 of Construction Impacts from Firebird Raceway Passing Lanes**

Construction-related impacts will be very visible to motorists and those existing property owners who are nearest to the highway. Impacts will be limited to some degree, because construction will be phased so that only selected areas would be affected at one time and construction would not occur along the entire corridor

simultaneously. Visual impact will attenuate with increasing distance from the highway. For example, construction impacts would be barely visible from Viewpoint 2B.

If construction continues beyond sunset, construction flood lighting would increase the light and glare in construction areas for limited periods. Visual impacts may also occur during construction as a result of wind blown dust from exposed soils.

## Impacts During Operation

### *All Viewpoints*

Following construction, the most visible impact will be the wider roadway segment. As shown in figure 4, the main highway will vary in width from 72 to 92 feet and will be approximately 2 to 3 times wider than the existing highway. The visual impact will have the most impact on property owners closest to the highway and will attenuate with distance. Loss of existing roadside trees will be evident. During the year of opening, the new highway will have a fresh, new appearance with new striping, new signals and signage, and new bridges (at select locations), providing improved visual appeal over existing conditions. Over time, as the highway and related facilities weather, that new visual appeal will be lost.

Additional visual impacts will be evident where new frontage and backage roads will be constructed (see figure 3). In some cases, new paved frontage and backage roads will replace existing gravel roads and the visual change may be considered positive by many viewers. In other locations, new frontage and/or backage roads will be constructed across previously undisturbed terrain and the visual change may be viewed as an intrusion into previously undisturbed native or agricultural terrain. Some viewers may consider the visual impact a loss of intactness and unity.

Following construction, traffic volumes will increase over time, with a corresponding increase in light and glare.

### *Viewpoints 6A and 6B*

Major changes in existing views will occur at Viewpoints 6A and 6B (photographs 11 and 12) with construction of a new grade-separated interchange at this location. Some existing ground-level views will be blocked by the highway interchange ramps and overpass structures.



This will impact adjacent property owners the most as views across the highway will be blocked. Motorists traveling up over the new ramps and structures will gain better territorial views.

### *Viewpoints 7A and 7B*

Major changes will occur in views both to and from Idaho 16 from Viewpoints 7A and 7B if the proposed noise wall is constructed. The noise wall will vary in height from 7 to 9 feet from east to west. For motorists driving down the highway, middleground views of residences and trees, and background views of agricultural lands and Emmett Butte will be replaced by foreground views of a new noise wall. Similarly, existing residences will no longer have unobstructed views across the highway in the north-south direction, and views will be obstructed by the new wall.

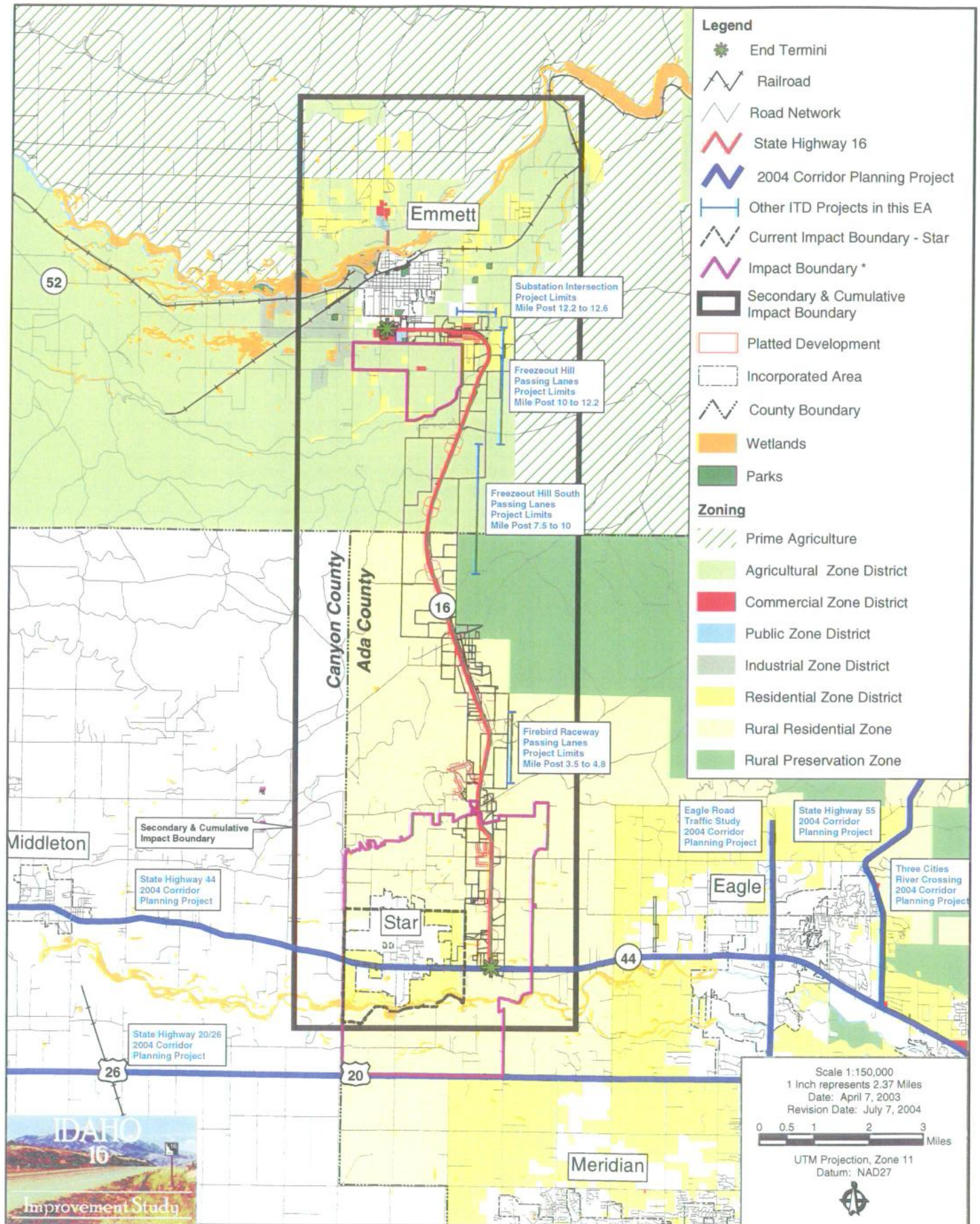
## **Secondary and Cumulative Impacts**

### ***Introduction***

This section discusses the potential secondary and cumulative (S&C) impacts of the Idaho 16 Preferred Alternative compared to the No Action Alternative. It begins with a definition of the S&C geographic boundary, provides a summary of the land use impacts and defines the regulatory basis and explains what is meant by S&C impacts. Future land use changes in the project area are then described, focusing on the influence of the Idaho 16 project.

S&C impacts can be both beneficial and adverse. Prior to assessing the secondary and cumulative impacts, county and municipal planners and engineers in the project area (Lish, Eckles, Mitchell, personal communications) were contacted to define what geographic area might be influenced by possible S&C impacts from the phased build out of the Preferred Alternative. As a result, the area of impact boundary, land uses, and important resources are shown in figure 33.

The Environmental Assessment team analyzed potential land use and socio-economic impacts for the impact area as summarized in table 20. The S&C impacts to these and other environmental elements are discussed following the table.



This MAP is for general planning purposes only, and is subject to updates and changes. Any user should check with the Idaho Transportation Department prior to use to be sure that the data shown is current. Because of the scale of this map, any user should not rely on it for the exact definition of any boundary or division line shown on said map.

This MAP is based on information from numerous sources and the accuracy of which is not guaranteed by the Idaho Transportation Department. The Idaho Transportation Department is not responsible and shall not be liable to the user for damages of any kind arising from the data or information shown of this map.

\* Impact boundary for Star under negotiation.

**Figure 33:**  
**Secondary & Cumulative Impact Study Area**

<p><b>Table 20</b> <b>Summary of Secondary and Cumulative Impacts</b></p>		
Resource	No Action	Action
Traffic / LOS	0	+
Consistency with Local and County Land Use Plans	0	=
Land Use Impacts	0	=
Agricultural Impacts	=	=
Residential Neighborhood Impacts	0	+
Residential / Business Relocations	0	=
Environmental Justice	0	0
Visual Resources – Views of Road / From Road	0	=
<p>Key: 0 is least beneficial / most negative; = is both positive and negative, depending on area within the S&amp;C boundary and other factors; and + is most beneficial / most positive</p>		

## *Regulatory Basis and Definitions of Secondary and Cumulative Impacts*

Environmental regulations implementing NEPA require federal agencies to consider direct, secondary, and cumulative impacts of a proposed federal action. The Council on Environmental Quality (CEQ) regulations (40 CFR 1500–1508) provides a regulatory framework and guidance for analyzing secondary and cumulative impacts.

Direct impacts “are caused by the action and occur at the same time and place.” Direct impacts are discussed earlier in this EA.

Secondary (indirect) impacts “are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable”. Secondary impacts may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Cumulative impacts result from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over time. If an individual project has no direct or indirect effects upon a resource, then it also has no cumulative effects upon that resource. According to federal guidance, a cumulative impacts analysis should focus on resources that are important and relevant (“Count what counts”).



## *Time Frame for Past, Present, and Reasonably Foreseeable Future*

Past projects include the development of the existing Idaho 16 Corridor over the past 10 -30 years. Many local roadways in the project area were developed to serve farm-based traffic. These roads are experiencing increased traffic as new residential areas are developed. Many of these “farm-to-market” roadway facilities (including bridges) are substandard and inadequate to support the urban growth that Ada and Gem counties are experiencing.

The present and future Idaho 16 Project will be implemented from now and over the next 30 years as funding becomes available. Several other transportation projects (Idaho 16 projects, SH 44, SH 55, Eagle Road, etc.) are likely to be developed over this time frame (see figure 33). Of these, only SH 44 improvements are a separate highway project that lies within the secondary and cumulative impact boundary.

## *Secondary Impacts*

### **Land Use – Will the Idaho 16 Project Induce Land Development? What are the implications to other secondary environmental impacts?**

Existing zoning in most of the project area is rural residential, agricultural/ natural resource (figure 33). Although a few commercial properties currently exist along Idaho 16, new commercial development probably will require land use changes, such as rezoning or other special use permitting measures.

Future growth areas have not been designated by local land use jurisdictions for most of the route; however, the City of Emmett has negotiated impact boundaries with Gem County. For the city of Star, areas designated as Residential Zone District (outside the City boundary) represent expected growth areas. A current proposal for expanding Star’s impact boundary is also shown on figure 33. At this writing, it has not received final approval from the Ada County Commissioners; however, it indicates that land use is changing within the S&C boundary.

For areas outside of Emmett and Star to experience growth, basic infrastructure (roads, water, power, and wastewater treatment) will be needed. Construction of improvements to Idaho 16, including frontage and backage roads will increase the potential for secondary growth impacts by providing access to these lands. As mentioned above, existing local land use plans generally do not acknowledge this growth potential, however this is changing. It should be noted that considerable rural residential development already exists from the intersection of Idaho 16 and SH 44 up to approximately MP 7 (Willow Creek area). Therefore existing development will benefit from the roadway improvements.

North of MP 7, frontage and backage roads will provide access for existing residents. Water or sewer services are not provided for the area in and around Freezeout Hill in Gem County. This hinders the area’s development potential and unless services are provided, this area is likely to see the least amount of future development.

Whether or not the secondary growth impacts are realized is dependent on the local land use jurisdictions’ future regulatory decisions and timing of infrastructure improvements. Increased development, including Idaho 16 improvements, could encourage nearby cities to annex these

areas, which could speed expansion of existing sanitary sewer and public water supply systems to areas that rely primarily on septic and well systems.

Frontage and backage roads will be built only to control and preserve access. Where no access is needed at this time, frontage and backage roads will not be built; however, the ROW for those areas will be acquired and preserved for future construction. Development will determine when these sections of roads are constructed. The future construction cost of these segments will be the responsibility of the developer(s) needing access to Idaho 16.

In summary, Idaho 16 improvements will be one of several important infrastructure improvements to facilitate land use change from rural to suburban uses in the S&C boundary area. Land use changes are more likely near the Cities of Star and Emmett and less likely north of MP 7, unless other infrastructure is provided.

## *Cumulative Impacts*

### **What other past, present, and reasonably foreseeable future actions will occur?**

Gem and Ada County officials were contacted to determine if other actions within the S&C boundary should be documented in a cumulative impact discussion. The following projects were identified:

- ♦ Recreation land - 240-acre, 18-hole golf course and 18 acres of new vineyards at the Winery at Eagle Knoll
- ♦ Trellis residential subdivision – 48 single-family homes near golf course
- ♦ Colton ranch subdivision – 9 single-family homes near Chaparral Road
- ♦ Bella Vista Estates subdivision – 5 single-family homes

Another future project is the SH 44 corridor project. This project's purpose is to preserve corridor for highway improvements and it is partially within the S&C boundary.

As long as economic conditions, quality of living standards, the annual growth rate, and transportation services remain satisfactory, these conditions are expected to continue bringing new businesses and roughly 2.5 times as many people into the area by 2022 (COMPASS 2004). If the pattern of growth remains unchanged, two-thirds of this anticipated growth will locate outside built up areas creating the potential for cumulative impacts.

### **What are the secondary and cumulative impacts of the Idaho 16 project and these other actions?**

#### *Traffic and LOS*

Action - Implementation of the Idaho 16 project will improve safety conditions and improve access to adjacent land through provisions of planned intersections and frontage/backage roads. The Idaho 16 improvements are expected to support the current growth rate and help preserve the area's economic vitality by providing reasonable traffic flow to move goods and services.

No-Action – No-Action will result in increased traffic congestion and increased travel times, associated economic impacts, and a likely increase in traffic accidents.

### *Air Quality*

Action - The 2030 traffic forecast used in air quality modeling for the Idaho 16 project addresses new vehicle trips associated with future development. Therefore, the potential air quality impacts of land use changes are addressed in the direct impacts section. Impacts on air quality are expected to be slightly positive.

No-Action – No-Action will result in increased traffic congestion that will increase concentrations of air pollutants.

### *Noise*

Action - The 2030 traffic forecast used in traffic noise modeling for the Idaho 16 project addresses new vehicle trips associated with future development. Therefore, the potential traffic noise impacts of land use changes are addressed in the direct impacts section.

Impacts on noise from other land use changes (other than traffic) will be dependent on the specific changes. No other proposed land development projects demonstrate a concern for cumulative noise impacts. In general, conversion of rural residential and agricultural / resource lands to more suburban lands will result in noise increases as more people live closer together.

No-Action – Impacts similar to above, with slower land use conversion.

### *Geology/Soils*

Action - As future land development occurs, impacts related to improper clearing and grading practices can result in water and air quality impacts from wind-blown dust and erosion/sedimentation.

No-Action – Impacts similar to above, with slower land use conversion.

### *Wetlands*

Action - As future land development occurs, wetland impacts are related to destruction by filling and to the volume and quality of surface water runoff discharging to the wetlands. Impervious surfaces, such as asphalt or concrete, prevent rain and surface water from infiltrating into the ground. Runoff may be diverted into drainage ditches or pipes for routing to receiving waters. When watersheds are developed and covered with an impervious surfaces and the runoff is not adequately stored or managed for water quality, flooding and water quality problems can damage wetlands.

No-Action – Impacts similar to above, with slower land use conversion.



### *Waterways and Water Quality*

Action - Watershed development can cause flooding and water quality impacts unless properly managed. New development is likely to displace existing agricultural land uses, causing a change in water quality impacts because agricultural water quality impacts are replaced by residential, commercial, and/or light industrial water quality impacts.

No-Action – Impacts similar to above, with slower land use conversion.

### *Floodplains*

Action - Future development may also result in additional pressure to develop in floodplains. This is especially true where proposed frontage or backage roads are located in floodplains (e.g., Floating Feather Road, Farmers' Union Canal, Chaparral Road intersections). Unmanaged development in floodplains can result in property damage and public hazards from flooding.

No-Action – Impacts similar to above, with slower land use conversion.

### *Vegetation, Wildlife, and Threatened & Endangered Species*

Action - Future development may also result in additional pressure to develop in existing habitat that supports wildlife, including threatened and endangered species. Additional land clearing without proper management has the potential to impact protected plant and animals.

No-Action – Impacts similar to above, with slower land use conversion.

### *Land Use*

Action - Land use changes in the S&C area are discussed earlier in this section.

As traffic flow and safety improves along Idaho 16 and travel time decreases for commuters, the demand for residential and commercial property along Idaho 16, particularly near frontage/backage roads, is expected to increase. The southernmost part of the project area will likely see the first development opportunities due to its close proximity to Boise.

No-Action – Impacts similar to above, with slower land use conversion.

### *Farmland and Irrigation*

Action - The reduction of acreage of productive farmland may reduce farmers' ability to maintain efficient and modern farming technologies because the cost per acre of investment in new equipment will be higher.

With the frontage/backage roads in place, more development could occur leading to additional reductions in available farmland. This could make it less economically viable to farm certain

properties and encourage further conversion to other uses, such as residential or commercial, reducing the amount of useable farmland.

If additional development occurs, it could also disrupt the irrigation networks and /or decrease the need for irrigation. This may lead to the eventual abandonment of irrigation infrastructure in areas where farmlands are converted to other uses.

On the positive side, an improved transportation system will allow farm products improved access to the marketplace.

No-Action – Impacts similar to above, with slower land use conversion.

### *Environmental Justice*

There are no EJ populations in the project area.

No-Action – Same as build.

### *Displacements/Relocations*

Action - There are no known displacements related to secondary or cumulative land use changes.

No-Action – Same as build.

### *Cultural Resources*

Action - As future land development occurs, the potential for impacts related to cultural resources will increase unless properly managed.

No-Action – Impacts similar to above, with slower land use conversion.

### *Hazardous Materials*

Action - New development may result in excavation of site contamination unless properly managed.

No-Action – Impacts similar to above, with slower land use conversion.

### *Visual Quality*

Action - As future land development occurs, the views of the landscape will be changed from agricultural/resource lands to suburban lands. For agricultural/resource lands in the northern area (south of Freezeout Hill), these changes are not consistent with county land use plans.

No-Action – Impacts similar to above, with slower land use conversion.

## *Tools to Address Secondary and Cumulative Impacts*

A wide range of tools are available to local governments and other agencies to initiate and manage potential secondary and cumulative impacts associated with the improvements to Idaho 16. These tools include:

### **Regulatory Tools**

- ♦ Comprehensive Planning
- ♦ Zoning
- ♦ Areas of Impact
- ♦ Land Division Regulation
- ♦ Official Mapping
- ♦ Access Controls

### **Non-regulatory Tools**

- ♦ Land Acquisition
- ♦ Information and Education

### **Comprehensive Planning**

Communities in Idaho are empowered to adopt comprehensive or master plans. The Idaho Statute that enables local comprehensive planning is 67-6508 of the Idaho Statutes.

In the Idaho 16 Improvement study area the local units of government—Ada and Gem counties and the Cities of Star and Emmett—have adopted comprehensive plans. These comprehensive plans identify areas where urbanization is expected to occur.

### **Zoning**

Municipalities in Idaho are enabled to regulate land uses at the local level through zoning. Through Section 67-6511 of the Idaho Statutes, cities and counties are enabled to adopt local zoning ordinances. Either city or county zoning regulates all of the land area within the Idaho 16 study area.

### **Areas of Impact**

Through Section 67-6526 of the Idaho Statutes, cities are enabled to adopt ordinances regulating land uses outside of their municipal limits. Implementation of Areas of impact requires cooperation between the incorporated municipality, surrounding town(s), and the county. Both Emmett and Star have adopted an area of impact, as shown on figure 33, which incorporates portions of the Idaho 16 study boundary.



## **Land Division Regulations**

Idaho Statutes Chapter 67 enables cities and counties to adopt land division regulations to control the creation of lots through Subdivision Plats. Cities may unilaterally implement land division controls within their jurisdictions that extend outside the municipal boundaries but are within their urban service planning areas. Ada County, Gem County, City of Emmett, and the City of Star regulate lot creation within the Idaho 16 Study Boundary.

## **Access Controls**

The Idaho Transportation Department has the power to purchase and control access rights to Idaho 16 and connecting roadways. The proposed alternative for Idaho 16 Improvement project will have Type IV access control.

## **Official Mapping**

Cities are enabled by Section 67-6517 of the Idaho Statutes to adopt "Future Acquisitions Map" to reserve land for roads, streets, public transportation facilities, schools, parks or other public purposes.

## **Information and Education**

The use of more general information and education programs play an important role in informing the public about land use planning and development issues.

## **Idaho Transportation Department's Role**

The Idaho Transportation Department continues to work with local communities on access issues and to encourage local land use planning and growth management. ITD is working with the City of Emmett, City of Star, Gem County, and Ada County to institute land use planning and access management controls within the Idaho 16 Study Area.

Table 21 summarizes the potential secondary and cumulative impacts.

**Table 21**  
**Summary of Potential Secondary and Cumulative Impacts**

No Action Alternative	Action Alternative	Tools to address Impacts
<i>Residential Impacts</i>		
Increase congestion and slow movement along Idaho 16, which would impede mobility. Discourage development that might otherwise occur at in the corridor, which would slow sewer and water extensions and affect direction of residential growth.	Would have impact on direction of growth within Emmett's and Star's Impact Planning Areas.	<p>Comprehensive Planning and Zoning Regulations — The City and County have adopted land use plans and local zoning and land use controls. The implementation of these locally adopted land use plans and regulations will have a much more significant impact on long-term residential development patterns than the proposed Idaho 16 improvements.</p> <p>Areas of Impact — Allows cities to regulate land use outside cities adopted "city limits." This is done by negotiating impact boundaries outside the city limit line with adjoining cities or the county.</p> <p>Corridor Planning— ITD will work with Emmett and Star and Ada and Gem counties to improve access management and land use planning.</p> <p>Agricultural Preservation Policies — Most of the area outside the study boundary is protected by a county agricultural preservation policy (see agricultural impacts section of this table) which can be used to lessen the pressure for residential growth in rural areas outside the area of impact as shown in figure 33.</p>
<i>Commercial Impacts</i>		
Existing travel patterns would remain. Highway service oriented businesses would retain the highway related business. Increased traffic congestion along the corridor may be perceived as negative. Current travel patterns would result in higher levels of through traffic. Idaho 16. This may adversely impact existing businesses by deterring potential customers and increasing costs of delivering goods and services.	Improve access to existing businesses in the area. Will increase commercial activity in area, attracting new businesses.	<p>Access Controls — The connecting highways and roadways along Idaho 16 are planned to be access controlled. It is the intent of ITD to purchase access control for frontage and backage roads connecting to Idaho 16.</p> <p>Intergovernmental Agreements — Intergovernmental agreements can be used to promote cooperation among the highway districts, ITD, Emmett, Star, and Gem and Ada counties to control access within the study boundary to help manage commercial developments.</p>
<i>Agricultural Impacts</i>		
Would have least impact on agricultural land — no severing of agricultural land. Farm to market access would continue to be congested.	Agricultural land within the urban service planning boundary near SH44 is expected to convert to residential, commercial and industrial land uses within 20 years. Outside the urban service planning areas, current zoning encourages land preservation and discourages conversion of farm land to non-farm uses.	The County has comprehensive planning that strives to preserve agricultural land and maintain the rural character.
<i>Parks and Recreational Impacts</i>		
The no-action alternative has no secondary impacts on parks or recreation areas within the study boundary.	The Action alternative has no secondary impacts to parks and recreational areas within the study boundary.	

# COMMENTS AND COORDINATION

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## Public Involvement

The preliminary alternatives and environmental screening results were presented to the general public, public agencies, and local jurisdictions at four open house meetings held between March 2002 to September 2003. The meetings were held to provide the public and agency representatives with an opportunity to view and discuss the alternatives and their impacts on the environment. The meetings were also intended to provide citizens within the study area the opportunity to comment on concerns and preferences.

At the first two public meetings in March and October 2002, the project team presented the four preliminary alternatives: Alternatives 1A and 1B and Alternatives 2A and 2B (figure 5). These alternatives were evaluated for their ability to meet the project's purpose and need and their relative environmental and social impacts. The majority of citizens expressed opposition to both Alternatives 2A and 2B, due to their comparatively greater impacts on farmlands, residential properties, and local businesses. Some opposition was also voiced against Alternatives 1A and 1B.

This opposition prompted ITD to develop a fifth alternative—Alternative 1C (figure 6). Alternative 1C will follow the existing Idaho 16 highway alignment and will have a combination of frontage and backage roads. One of the primary advantages of Alternative 1C is that it will use existing public roads for frontage and backage roads where feasible.

At the last two public meetings in April and September 2003, ITD presented this new alternative, Alternative 1C. Comments received at the last public meeting were generally favorable with respect to the new alternative. Comments also focused on project implementation and the construction time frame for related projects.

In addition to the public meetings described above, ITD also held four Task Force meetings. Task Force meetings were held during June 2002 and during February, May, and July 2003. Attendees included representatives of the "Citizens for a Safer Highway 16", Emmett Jaycees, the media, and other interested citizens from the area in the southern portion of the project area.. Feedback from Task Force meetings was also used to refine and develop the various alternatives and to help select a preferred alternative.

Refer to Appendix D for a complete summary of the public involvement.

## Coordination

The public involvement and agency outreach efforts for the Idaho 16 project provide supporting documentation to this EA. Coordination and consultation has been conducted and



has played a major role in developing the project alternatives. Local, state and federal agencies were contacted for input on the Idaho 16 Improvement project. These agencies include the Bureau of Land Management, U.S. Fish and Wildlife Service, Natural Resources Conservation Service (NRCS), Idaho Conservation Data Center, U.S. Army Corps of Engineers, and the State Office of Historic Preservation. In addition, coordination with the Ada and Gem County Planning and Zoning Departments, and the Ada County Highway District has been conducted to identify and resolve issues that require the input from the respective agencies. Letters required from the agencies are included in the section Correspondence and Supporting Documentation. Additional letters of concurrence are being sought and will be included prior to the approval of the EA by ITD and the Federal Highway Administration (FHWA) as co-signers of the EA. These include the FHWA concurrence on the alternative screening approach, the section 4(f) evaluations, the final NRCS AD-1006 form, and the concurrence on the No Effect statements for the species protected under the Endangered Species Act.

# PROGRAMMATIC SECTION 4(f) EVALUATION

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## *Studies and Coordination*

Individual and Programmatic Section 4(f) evaluations were prepared to comply with the Department of Transportation (DOT) Act of 1966 (Bionomics Environmental 2003a and 2003b). All documents meet the requirements for a programmatic Section 4f and were approved by FHWA (2004).

## *Methodology*

The National Register of Historic Places (NRHP) and the preliminary design drawings were reviewed to evaluate Section 4(f) impacts and mitigation (Bionomics Environmental, Inc. 2003a and 2003b and Mauser 2003).

23 USC 138 states:

“[T]he Secretary [of the Department of Transportation] shall not approve any program or project (other than any project for a park road or parkway under Section 204 of this Title) which requires the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance as determined by the Federal, State or local officials having jurisdiction thereof, or any land from an historic site of national, state, or local significance as so determined by such officials unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm to such park, recreational area, wildlife and waterfowl refuge, or historic site resulting from such use.”

This provision is also known as Section 4(f) of the Department of Transportation Act of 1966. Under Section 4(f) of the Department of Transportation Act of 1966, an evaluation of Section 4(f) resources is required to demonstrate:

1. There is no feasible and prudent alternative to the use of such land, and
2. Projects include all possible planning to minimize harm.

Section 4(f) resources were documented by individual and Programmatic Section 4 (f) evaluations for the Idaho 16 project and are adopted by reference (Appendices F and I). Programmatic Section 4(f) review is an abbreviated review process that can be used for resources if they meet certain criteria. Based on a review of the Programmatic Criteria, it has been determined that Programmatic Evaluation is applicable to all of the NRHP resources.

The Archaeological and Historical Survey Report dated July 30, 2003 concluded that 11 sites located within the Area of Potential Effect are eligible for the NRHP:

- Middleton/Middleton Mill Canal System
- Pollard Ditch
- Drain Ditch 11, District 2
- Farmer's Union Canal
- Last Chance Canal
- Girdner and Jones Ranch
- Drain Ditch 10, District 2
- Foothill Ditch
- Mossman/Revels Farmstead
- Mossman Farmstead
- Liberty Grange

Of these sites, seven are considered Section 4(f) resources under Section 4(f) of the DOT Act of 1966. The other four (the Mossman/Revels Farmstead, the Liberty Grange, the Mossman Farmstead, and the Girdner and Jones Ranch) are NRHP-eligible buildings that will not be used by the project, and therefore are not considered under Section 4(f).

The Idaho 16 Improvement Study proposes to widen seven existing canal crossings along the highway and proposes to cross five of the canals with frontage and backage roads on both sides of the highway.

A Programmatic Section 4(f) Evaluation of the existing canal crossings was conducted to evaluate the use of the following canals and ditches in the project area: Pollard Ditch, Ada County Drain Ditch 11, Middleton Mill Canal, Ada County Drain Ditch 10, Foothill Ditch, Farmers Union Canal, and the Last Chance Canal. Through the Section 106 process, all of the proposed crossings were determined to be a minor use of the resource and all crossings were determined to have no adverse effect on the resources.

A Section 4(f) Evaluation of the new canal crossings, resulting from the frontage and backage roads was conducted to evaluate the use of the following canals and ditches located in the area of the frontage roads: Pollard Ditch, Ada County Drain Ditch 11, Middleton Mill Canal, Foothill Ditch, and the Farmers Union Canal (Bionomics 2003a and 2003b). The proposed crossing locations have been determined through the Section 106 process to have no adverse effect on the resources.

## Impacts

A Programmatic Section 4(f) Evaluation for all NRHP eligible sites was conducted to determine: 1) that there is no other feasible and prudent alternative to such use of NRHP-eligible properties and 2) that all measures will be taken to minimize harm to each Section 4(f) property (Bionomics 2003a and 2003b).

## Description of 4(f) Resources

Pollard Ditch: A lateral of the Middleton Mill Canal, the ditch was formerly known as Stevens ditch after Leroy Stevens, a landowner along the ditch. The ditch is eligible for the NRHP under Criterion A because of its association with the Middleton Mill Canal.

Ada County Drain #11: This ditch was constructed between 1921 and 1929 and is part of the drainage system regulated by Drainage District #2, formed in 1929. The drain is



approximately ten feet wide and five feet deep and is approximately six miles long. The drain system uses subground water and runoff. The drain is eligible for the NRHP under Criteria A and C for its association with the agricultural development of the valley.

Middleton Mill Canal: In the project area, the Middleton Mill Canal includes water from the Middleton Ditch. The two systems run within the same channel in several locations throughout the valley. The Middleton Ditch begins at the Boise River and runs northwesterly through the town of Eagle and into the Star area. The ditch was formed in 1876 and was completed in 1878. By 1900, it extended 15 miles in length, had 12 miles of laterals by 1903 and by 1906, water rights were received. The Middleton Mill Canal originated in the Middleton area in 1864, carrying 1,200 inches of water. By 1900, the canal system was twenty miles long, supplying water to 3,000 acres and running a flour mill. By 1903, the canal had 33 miles of laterals and in 1906 water rights were received. The system (encompassing both the ditch and the canal) is eligible for the NRHP under Criteria A and C for its association with the early settlement and development of the region.

Ada County Drain #10: This ditch was constructed between 1921 and 1929 and is part of the drainage system regulated by Drainage District #2, formed in 1929. The drain is approximately five feet wide and five feet deep and is approximately five miles long. The drain system uses subground water and runoff. The drain is eligible for the National Register of Historic Places (NRHP) under Criteria A and C for its association with the agricultural development of the valley.

Foothill Ditch: A lateral of the Middleton Mill Canal, the Foothill Ditch may also be associated with the historic Ballentyne Canal to the east of Idaho 16. The "Plan and Profile of Proposed Payette Highway Emmett Branch Route 16" plan map of 1929 shows the ditch, labeled "Ballentyne Canal". The Ballentyne was constructed in 1888. By 1903, it extended 5.5 miles with 4 miles of laterals. The Foothill lateral may be an extension of the Ballentyne and is eligible for the NRHP under Criteria A and C for its association with the early agricultural development of the valley.

Farmers Union Canal: The Farmers Union Ditch Company began in 1894 and by 1899 was completed to its entire length of 24 miles. In 1903 the canal was 24 miles in length with 59 miles in laterals, and could service about 10,000 acres. The bridge crossing at Idaho 16 is modern. Bridges are located east of Idaho 16 at the north end of Double S Lane and east of Idaho 16 in Big Gulch and at the north end of Pollard Lane, and all are modern. Just east of Idaho 16 and south of the Pollard Lane intersection is a 100-year old historic concrete spillway that transfers water to an adjacent ditch. That ditch is piped under the highway to water the fields on the west side. The canal is eligible for the NRHP under Criteria A and C because of its association with the agricultural development of the Boise River valley and engineering construction.

Last Chance Canal: Construction began in 1889, beginning from the east side of the Payette River a half-mile below the present Black Canyon Dam for four miles ending south of Emmett, and was completed in 1891. The Emmett area boomed when the canal was expanded to twice its capacity in 1904 and the Boise and Emmett valleys became the richest fruit-producing areas in Idaho by 1907. The canal is eligible for the NRHP under Criteria A and C because of its importance in the development of the fruit industry in the Emmett Valley and for engineering.

## Project Uses of the 4(f) Resources

The project will add frontage roads along both sides of Idaho 16 to provide for farm and residential access. The following discussion depicts the project uses of the 4(f) properties where the canals and ditches are already crossed by the highway.

Pollard Ditch: This ditch crosses underneath Idaho 16 via an 18-inch pipe. The ditch is approximately 4 feet wide and 4 feet deep in the project area and is less than two miles in length. The existing 2-lane 83-foot crossing (with 84 feet of right-of-way [ROW]) will be replaced with a new 200-foot crossing on Idaho 16, requiring approximately 122.25 feet of new ROW. The project also adds a new frontage road to the east that will cross the Pollard Ditch. This new crossing will require approximately 115 feet of reinforced concrete pipe to be installed and approximately 166 feet of ROW at the crossing.

Ada County Drain #11: Ada County Drain #11 is approximately ten feet wide and five feet deep where it crosses underneath Idaho 16. The drain is approximately 6 miles in length. The project will require a minor use of the ditch because the project involves the widening of Idaho 16. The preferred alternative will require the existing 2-lane 80-foot crossing to be widened to accommodate the expanded highway. Approximately 132.5 feet of new ROW will be required by the preferred alternative to accommodate the 200-foot crossing structure. The 48-inch reinforced concrete pipe will be replaced and extended to the ROW boundaries in close proximity of the existing crossing location. The project also will require the use of the drain because the project involves the addition of frontage roads and the realignment of a portion of the drain. The preferred alternative will require approximately 90 feet of new ROW and installation of a new 70-foot structure under the new frontage road on the east side of the highway. The west side frontage road will require approximately 400 feet of the existing drain to be realigned with an additional 200 foot culvert crossing.

Middleton Mill Canal: The Middleton Ditch and the Middleton Mill Canal run within the same channel in the project area, and cross under Idaho 16 near MP 0.6. The canal is approximately 20 miles in length and is approximately 10 feet wide and 10 feet deep in the project area. The existing 2-lane 40-foot crossing (with 80 feet of ROW) will be replaced with a new 4-lane 112-foot bridge, requiring approximately 126.25 feet of new ROW. See figure 3. A new frontage road on the west side of Idaho 16 will require a 2-lane, 55-foot-wide canal crossing with 112.5 feet of ROW. A new frontage road on the east side of Idaho 16 will require a 2-lane, 65-foot-wide canal crossing with 118.75 feet of ROW. The frontage roads at the Middleton Mill crossing are located parallel to the highway.

Ada County Drain #10: Ada County Drain #10 where it crosses underneath Idaho 16 is approximately five feet wide and five feet deep. The project will require a minor use of the 10-mile long ditch because the project involves widening Idaho 16 and adding frontage roads. The preferred alternative will require the existing 2-lane 66-foot crossing (the ditch is piped in a modern concrete box culvert) to be widened to four lanes to accommodate the expanded highway. In addition, two adjacent, parallel frontage roads will be located on the east and west sides of the highway. The existing culvert will be replaced with a larger concrete box culvert that will accommodate the widened main alignment and the two frontage roads. The preferred alternative will require the existing 80-feet of ROW to be extended to approximately 220 feet of new ROW in the vicinity of the canal.

Foothill Ditch: The existing 44-foot crossing of the 5.5-mile-long Foothill Ditch will be extended to accommodate a wider Idaho 16 at the same location. The existing 2-lane highway will be widened to four lanes, requiring a new 120-foot-wide box culvert crossing structure, requiring approximately 129 feet of new ROW. The new frontage roads on the east and west sides of the highway will cross the ditch, each requiring a new 2-lane, 55-foot-wide box culvert. The west side crossing will require approximately 106 feet of new ROW, while the east side crossing will require approximately 84 feet of new ROW. The frontage roads at the Foothill Ditch crossing are located parallel to the highway.

Farmers Union Canal: The canal is approximately 10 feet wide and 5 feet deep in the project area and is currently crossed by Idaho 16. The canal is 24 miles in length. The existing crossing of the Farmers Union Canal is near High Ridge Lane, just past MP 3.0. This existing 40-foot crossing will be relocated approximately 100 feet further north and extended to 130 feet via a new box culvert to accommodate the widened highway. On the east side of the highway at this location, the canal will be extended approximately 100 feet north with a concrete lined ditch. The new crossing will require approximately 85 feet of new ROW. A new frontage road on the east side of the highway will run near High Ridge Lane, requiring a culvert crossing approximately 75 feet in width and approximately 200 feet of new ROW.

Last Chance Canal: This 4-mile-long canal is 10 feet wide and 8-10 feet deep in the project area. It is currently crossed near MP 13. The project will replace the existing 2-lane 50-foot modern box culvert crossing with a new structure approximately 112 feet in length. The project will require approximately 87.5 feet of new ROW.

All of the ROW required for the ditch and canal crossings has been minimized and as a result, none of the crossings constitutes an adverse effect to the resource because the character of the resource will not be changed. Several other NRHP-eligible properties were recorded in the project area and have been avoided by the preferred alternative.

## Avoidance Alternatives

The following alternatives avoid any use of the historic sites:

- No-Action
- Improve the highway without using the historic sites
- Build improved facility on a new location without using the historic sites

### *No-Action*

The No-Action Alternative has been studied. This alternative is not prudent because it ignores the basic transportation needs of the project, which consists of adding through travel lanes and frontage roads to improve driver safety and access for future development along this corridor. The existing road alignment would remain in its current substandard condition and would not provide adequate capacity and level of service for future traffic volumes. The current 2-lane section throughout the project would be maintained and would quickly reach and exceed the



capacity of the highway. Vehicles trying to enter the highway from existing and future approaches would suffer extensive delays. The increasing number of Idaho 16 users would experience a decline in comfort and convenience in the design year due to the degraded level of service (the level of service would drop from "D" to "E") along this stretch of the highway. This alternative would not provide adequate capacity and level of service for 2030 traffic volumes and existing and future access would not be improved according to current ITD Access Policy, both of which are necessary to provide safe driving conditions. The No-Action Alternative would not meet current and future transportation needs and therefore is not a viable alternative.

### *Improvement without using the Section 4(f) Historic Site*

This alternative would widen the highway from MP 0.00 to the end of the project at MP 13.927. The existing canal and ditch crossings, all two-lane structures (either bridge or box culvert structures), would remain in place and unaltered.

This alternative is not prudent because it ignores the basic transportation needs at each canal and ditch crossing. The goal of the structure replacement at each site associated with the preferred alternative is to match the alignment of the highway. This alternative would not meet the project purpose, which is to upgrade the highway to four lanes with turning lanes to provide safe driving conditions for users. AASHTO standards indicate that public safety would be jeopardized if a four-lane facility is narrowed for a short distance (i.e., over a bridge) and then widened again.

### *Action Alternative(s) on new location without using Historic Site*

Investigations have been conducted to construct the highway on a new location that would shift the alignment of Idaho 16 to the east and to the west, as well as north and south where the highway curves near the project endpoint.

Because the historic sites are linear and run perpendicular to the highway, an alternative does not exist that would avoid the historic canals and ditches in the project area while providing a north-south travel route between SH 44 and Emmett. Any east or west alternative that begins at SH 44 and ends in Emmett would require crossing the canals and/or ditches that traverse the project area. The Middleton Mill Canal, Middleton Ditch, Pollard Ditch and Foothill Ditch are all part of the larger NRHP-eligible Middleton Mill system, which extends from the Boise River approximately 3 miles east of the project through Middleton more than 10 miles to the west (see the attached Site Map). Therefore, there is no other location that is both feasible and prudent that would avoid the canals and ditches in the area while meeting the project purpose and need.

The evaluations concluded that there are no feasible and prudent alternatives that will avoid any and all use of NRHP-eligible canals and ditches.

The FHWA has determined that the Mossman/Revels Farmstead, Liberty Grange, Mossman Farmstead, and the Girdner Jones Ranch will not be affected as per 36 CFR 800.3.

In addition, FHWA has determined as per 36 CFR 800.5 that the Idaho 16 Improvement Study Preferred Alternative will have no adverse effect on the Pollard Ditch, Ada County Drain Ditch 11, the Middleton Mill Canal, Ada County Drain Ditch 10, the Foothill Ditch, the Farmers Union Canal, and the Last Chance Canal. The preferred alternative includes all possible planning to minimize harm and to preserve the historic integrity of the proposed canal and ditch crossing structures are comparable to the structures that already exist in the same location.

## ***No-Action***

Under the No-Action Alternative, no impacts to Section 4(f) resources will occur.

## ***Secondary and Cumulative Impacts***

A key influence on the potential for secondary environmental impacts is the relationship of the proposed action to future land development. This proposed action will provide one key factor (transportation infrastructure) that can lead to future land development. Please see the more detailed discussion under Impacts of the Proposed Action Land Use that explains the relationship of the proposed action to future land development.

New development may result in demolition of historic buildings and more roadway crossings of historic canals and ditches.

In the absence of specific development proposals or site plans, it is not possible to evaluate the nature of potential future impacts.

# MITIGATION PLAN REPORT

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The engineers and designers who developed the Preferred Alternative took environmental constraints into account throughout the conceptual design process. The environmental approach first looked at avoiding environmental impacts. Where avoidance was not possible, minimization of unavoidable impacts was examined. The efforts to minimize impacts were evaluated due to the similarity and degree of impacts expected from alternatives screened and selected for further analysis. Additional measures to avoid and minimize impacts will be implemented through standard highway construction and maintenance practices. Specific alignment changes have been incorporated into the preliminary design plans for the Preferred Alternative based on stakeholder and resource agency involvement. Even with these commitments, the project will have certain unavoidable impacts. Mitigation measures and commitments (to avoid, minimize, or compensate for impacts) are described below. A list of commitments and best management practices (BMPs) identified as mitigation measures during the development of this Environmental Assessment as well as those standard to any ITD project were identified for each affected environmental resource. Standard BMPs applied to roadway construction projects of this type are listed under each resource and will be further developed during final design.

## Air Quality

### *Mitigation During Construction*

- ♦ Accumulated dirt and mud will be removed from the travel lanes prior to use by the general public.
- ♦ Spray exposed soil with water during dry weather to minimize wind-blown dust.
- ♦ Cover soil stockpiles to minimize wind-blown dust during dry weather.
- ♦ Emission-control devices will be required on all equipment.

### *Mitigation During Operation*

- ♦ ITD will coordinate future development of highway projects in the area with local entities to improve traffic flow, reduce stop/start actions, and minimize delays and out of direction travel.
- ♦ As a cooperating agency to the *Wintertime Air Pollution Response Plan* (IDEQ 2004), ITD would continue to support IDEQ by disseminating air quality alert information to the media and the public and will implement specific actions to reduce pollutants in the airshed and protect public health.
- ♦ As needed, ITD would also assist IDEQ in updating the State Implementation Plan for any new Non-Attainment designations for ozone and/or PM<sub>2.5</sub> and in identifying measures to achieve transportation conformity. At the appropriate time in the future,



ITD would prepare a supplemental air quality analysis to address any new air quality issues for the Idaho 16 project prior to construction.

- ♦ The quantitative conformity determination for this study may be reevaluated as each phases of the improvement projects are programmed. Project plans will incorporate appropriate mitigation measures based on the updated results at that time.

## Noise

### *Mitigation During Construction*

The following mitigation measures will be implemented:

- ♦ Conduct most construction activities in the urban area will be confined to the hours of 7:00 a.m. to 7:00 p.m. on weekdays.
- ♦ Require contractor to maintain all mufflers and exhaust systems in proper working order to control noise from construction equipment.

### *Mitigation During Operation*

- ♦ Noise barriers (walls or berms) were evaluated as a means of reducing noise levels below the FHWA Noise Abatement Criteria (NAC) at each affected property along the alignment. Based on ITD cost-effectiveness criteria (cost of noise mitigation not to exceed \$20,000 per residence), noise walls will provide cost-effective mitigation at 31 residences in the vicinity of Substation Road. The preliminary barrier design at this location is based on the current design of the alternative. The barrier heights recommended are based on the final grading of the project and are in reference to the elevation of the roadway. Along the north side of the project, a 9-foot-high barrier will extend for approximately 750 feet from Substation Road to the east. The barrier will decrease in height to 7 feet for the next 400 feet. The top of the final northern barrier segment will be at least 5 feet above the road elevation for 250 feet. The southern barrier will extend 1,300 feet at 9 feet high and another 500 feet at a height of 5 feet above the roadway elevation. At \$20 per square foot, the north and south barriers will cost a total of approximately \$536,000 (or approximately \$17,290 per benefited receiver). The barriers should be absorptive on both sides toward the road. One of the primary reasons that noise barrier mitigation is reasonable and feasible at this location is because interior residential streets provide driveway access to the respective properties versus Idaho 16. In such situations, a continuous noise barrier can be constructed.

## Geology/Soils

### *Mitigation During Construction*

Refer to the *Air Quality, Mitigation During Construction* discussion for measures to control wind-blown dust and particulate matter. Other measures to mitigate erosion/sedimentation and water quality impacts during construction will involve the following:

- ♦ Phase construction and limit the amount of exposed soil at any one time during the construction sequence.
- ♦ Schedule work so that clearing and grading activities occur during drier months.
- ♦ Route construction runoff to temporary treatment ponds or swales to remove suspended sediments prior to discharge to receiving waters.
- ♦ Design temporary drainage conveyance ditches to avoid erosion. Stabilize with quarry spall, gravel, geotextile fabric, mulch, check dams and similar means as site conditions warrant.
- ♦ Provide routine inspection and repair of construction runoff BMPs, especially prior to and following large rain events.
- ♦ Provide topsoil, mulch, and hydroseeding to stabilize slopes upon completion of finish grades.

### *Mitigation During Operation*

- ♦ Perform annual inspections following construction to ensure that all slopes and drainage courses are properly stabilized. Repair and stabilize as needed.

## Wetlands

### *Mitigation During Construction*

The following mitigation measures will be implemented during construction:

- ♦ Wetland boundaries will be flagged and wetland protection fence installed prior to clearing and grading so that the contractor does not inadvertently clear or excavate wetlands outside the work zone.
- ♦ A Stormwater Pollution Prevention Plan (SWPPP) for Construction Activities will be prepared and implemented by the contractor. The SWPPP will specify BMPs to be employed during construction to prevent and/or minimize erosion/sedimentation and water quality impacts associated with construction runoff. Refer to the *Geology/Soils and Waterways, Mitigation During Construction* discussion for additional detail.
- ♦ Culvert extensions will be provided to accommodate irrigation flows under the roadway at each irrigation crossing.
- ♦ 10 acres of new mitigation wetlands will be created to compensate for loss of 4.8 acres of impacted wetlands. A conceptual wetland mitigation plan for the project has been prepared (Entranco 2004).

- ♦ All areas outside the construction limits will not be touched.
- ♦ Any area within the project limits not required for construction will be flagged and avoided.
- ♦ Temporary wetland impacts will be rectified by restoring wetland habitat following construction.
- ♦ Flag wetland boundaries and install wetland protection fence prior to clearing and grading.
- ♦ Extend culverts to accommodate irrigation flows under the roadway at each irrigation crossing.

## *Mitigation During Operation*

The following mitigation measures will be implemented to prevent operational impacts:

- ♦ ITD will inspect roadway slopes, drainage ditches, and biofiltration swales annually to ensure proper performance and to provide maintenance as needed.
- ♦ ITD is currently working with IDEQ on a memorandum of agreement (MOA) for BMPs pertaining to construction and maintenance in or near surface waters. When the MOA is approved, it will govern how surface water impacts are reduced and how total maximum daily load (TMDL) requirements are met.
- ♦ ITD will prepare a Detailed Wetland Mitigation Plan specifying the location and proposed methods to construct 10 acres of mitigation wetlands. The plan will include measures to ensure the establishment of wetland soils, hydrology, and vegetation; it will include contingency measures to be followed in case of failure; and prepare and implement a monitoring and operation and maintenance plan for the created wetlands.

## **Waterways/Water Quality**

### *Waterways/Water Quality – Mitigation During Construction*

The following mitigation measures will be implemented during construction:

- ♦ Prepare and implement an Spill Prevention and Emergency Response Plan.
- ♦ Install silt fencing prior to clearing and grading to protect existing streams, wetlands and irrigation canals from construction runoff impacts.
- ♦ Also see the BMPs detailed under *Geology/Soils, Mitigation During Construction and Wetlands, Mitigation During Construction*.

### *Waterways/Water Quality – Mitigation During Operation*

The following measures will be implemented to mitigate operational impacts:



- ♦ For the urban portion of the highway (from Substation Road to the northern project limit), use infiltration in combination with proposed detention (**Washington Infrastructure Services 2003**) to provide water quality treatment. Provide dense planting of native grasses on the bottom of the detention/treatment facility to enhance pollutant removal.
- ♦ For rural roadway segments (south of Substation Road), use grass-lined drainage ditches and/or biofiltration swales at locations where runoff is concentrated to provide improved treatment prior infiltration to the groundwater. Use native grass seed mix. Consider adding topsoil and/or mulch to increase water retention and slow percolation rates to enhance treatment effectiveness prior to discharge to groundwater.
- ♦ In locations where steep gradients indicate the need for erosion control, provide quarry spall or biologs to reduce erosion potential. Vegetate banks with native grass seed mix.

### *Floodplains – Mitigation During Design and Construction*

The following measures will be implemented to mitigate construction impacts on the floodplain.

- ♦ Perform hydrologic and hydraulic analysis to size cross culverts. Size all floodway cross culverts to pass the 100-year storm and meet the zero-rise requirements of local ordinances.
- ♦ During bridge replacement locate all new piers outside the 100-year floodway. Use hydraulic analysis to evaluate bridge scour and size bridge piers accordingly.

### *Floodplains – Mitigation During Operation*

The following measures will be implemented to mitigate floodplain impacts during operation:

- ♦ Perform annual inspections to determine if flood conveyance and floodways have been impaired or blocked by sediment deposition or debris. Maintain and repair as needed, including streambank stabilization. Perform similar inspections after runoff events of 25-, 50-, and 100-year return frequency.

## **Vegetation, Wildlife, and Threatened & Endangered Species Mitigation During Construction**

The following mitigation measures will be implemented:

- ♦ Sensitive plant populations will be flagged and protection fencing installed prior to construction.
- ♦ Prior to construction, five populations of Aase's onions will be removed and transplanted to Unimin Corporation's native plant preserve near Emmett. They have successfully demonstrated that the species can be transplanted in reclaimed areas. Coordination of the timing and techniques used for the relocation would be developed with the BLM. Monitoring of the transplanted onions will be part of the mitigation.

- Only native species will be used to reseed areas following construction.
- For erosion/sedimentation and water control, see BMPs listed under *Geology/Soils, Mitigation During Construction* and *Wetlands, Mitigation During Construction*.

## ***Mitigation During Operation***

- ITD will provide regular weed control within the right-of-way.

## **Land Use**

### ***Mitigation During Construction***

- Acquire new ROW in a manner consistent with the federal Uniform Relocation and Assistance Act.
- Prepare a construction traffic management plan to ensure that two lanes of traffic remain open throughout the period of construction. The traffic management plan will include measures to maintain driveway and sidewalk access.
- Provide information to newspaper, radio, and television media regarding the timing of construction activities and any temporary lane closures.

### ***Mitigation During Operation***

- ITD will coordinate as needed with future developers and other existing adjacent land owners regarding access and improvements to frontage and backage roads, signage, and related improvements.

## **Farmlands**

### ***Mitigation During Construction***

- Provide compensation for farmland property acquisition in accordance with the Uniform Relocation and Real Property Acquisition Act of 1970 (Relocation Act) to minimize the impacts caused by this loss.
- Coordinate preparation of the Construction Traffic Management Plan with local farmers so that farming operations may continue without interruption.
- Coordinate with irrigation districts and individual property owners regarding modifications to irrigation systems for redesign, construction, or replacement during ROW acquisition. New irrigation system components will be compatible with current systems. Special consideration will be given to sizing the pipes and ditches appropriately to carry the necessary quantities of water, including flows expected from shared water sources.
- Extend, replace, and relocate culverts, canals, and ditches during the off-season.

## ***Mitigation During Operation***

- ♦ As Idaho 16 improvement projects are funded, ITD will work with local farmers to accommodate farm machinery access.

## **Hazardous Materials**

### ***Mitigation During Construction***

- ♦ Prepare a Preliminary Site Investigation (PSI) for the Emmett Chevron prior to final design. Performing a PSI prior to final design completion will give ITD the opportunity to avoid impacted areas or minimize impacted soil and groundwater disturbance by “designing around” those areas. By avoiding or minimizing impacted soil and groundwater disturbance, ITD may realize substantial cost savings relative to excavating, handling, manifesting, and disposing of a larger volume of impacted media during construction.
- ♦ Prepare a Spill Prevention and Emergency Response Plan.
- ♦ Include the following language in the Contract Provisions: If subsurface contamination is found at sites within the project area that were not identified in this study, ITD will address sites in compliance with applicable federal, state and local environmental laws and regulations.

## **Visual Quality**

### ***Mitigation During Construction***

These measures will mitigate visual impacts during construction:

- ♦ Implement BMPs to reduce impacts from airborne dust as described for air quality, which could impact visibility during construction.
- ♦ Hydroseed or hand seed exposed soils using native grass seed mix as soon as possible following final grading.
- ♦ Salvage and replant as much existing roadside vegetation as possible.
- ♦ Incorporate artistic and landscape elements into the proposed noise wall design and provide opportunities for citizen input particularly those near Viewpoints 7A and 7B.

### ***Mitigation During Operation***

No mitigation is proposed. It is anticipated that the new highway and frontage and backage roads will have the best visual appearance possible using standard ITD design and construction practices.



# FORMS

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The following forms are included in this EA:

♦ ITD-654 – Environmental Evaluation	Page 133
♦ ITD-654a – Hazardous Wastes/Materials (HW/M) Preliminary Site Assessment Checklist	Page 135
♦ ITD-606 – Access Control Determination	Page 136
♦ ITD-1500a – Determination of Significance and Effect	Page 137
♦ AD-1006 – Farmland Conversion Impact Rating	Page 139
♦ ITD-2784 – NPDES Storm Water Permit Project Checklist for Construction	Page 141

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## Environmental Evaluation



Date 6-25-04	District 3	Route # SH 16	City/County Eagle/Ada to Emmett/Gem
Project Name Idaho 16 Improvement Study		Project # STP-CM -3330 (105)	Key # 8630
Work Authority P023170		Program Year 2006	Termini (Mp To Mp) 0.000 to 13.927

Acres of New Public R/W 317	Acres of New Private R/W 56	(Discuss the existing use of R/W to be acquired, plus adjacent land use, zoning, development plans, etc. on attached Environmental Summary Sheet)
Tribal Impact <input type="checkbox"/> Cultural <input type="checkbox"/> Archeological <input type="checkbox"/> Reservation <input checked="" type="checkbox"/> None		Public Interest Expected? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Air Quality <input type="checkbox"/> Attainment Area <input checked="" type="checkbox"/> Non-Attainment Area <input checked="" type="checkbox"/> CO <input checked="" type="checkbox"/> PM		Exempt Project <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Type One Project (i.e., New Location, Substantial Alignment Change, Addition of a Through-Traffic Lane)		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Construction Impacts Requiring Special Provisions (Enter Details on Reverse Side)		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Program Year 2002 ADT 9000 DHV 692 % Trucks 4 Posted Speed 65		Design Year 2030 ADT 18100 DHV 1672 % Trucks 6 Posted Speed 65
Distance of Nearest Noise Receptor to Centerline Existing 66 feet Proposed 66 feet		

## Project Purpose and Benefits

Double mark (xx) only the item that best describes the Primary Reason for Proposing this Project

Single mark (x) all Other Relevant Items

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Maintain/Improve User Operating Conditions                           | <input type="checkbox"/> Enhance Accessibility for the Disabled/Safety                                   |
| <input checked="" type="checkbox"/> Maintain/Improve Traffic Flow  | <input type="checkbox"/> Enhance Pedestrian Safety and/or Capacity                                       |
| <input checked="" type="checkbox"/> Time Savings   | <input type="checkbox"/> Enhance Bicycle Safety and/or Capacity  |
| <input checked="" type="checkbox"/> Increase Capacity  | <input type="checkbox"/> Traffic Composition Enhancement (e.g., Truck Route, HOV Lane, Climbing Lane)    |
| <input checked="" type="checkbox"/> Reduce Congestion  | <input type="checkbox"/> Visual/Cultural Enhancement (e.g., Landscaping, Historic Preservation)          |
| <input checked="" type="checkbox"/> Reduce Hazard(s)   | <input type="checkbox"/> Environmental Enhancement (e.g., Air Quality, Noise Attenuation, Water Quality) |
| <input type="checkbox"/> Reduce Highway User Operating Costs   | <input type="checkbox"/> Economic Prudence (e.g., Repair Less Expensive than Replacement, B/C Ratio)     |
| <input type="checkbox"/> Other, List (e.g., Driver Convenience and Comfort regarding Rest Area Projects) |  |

Check Any of the Following That Require Avoidance, Minimization, or Discussion (If Yes, describe in the Environmental Document or CE)

- |  | Yes                                 | No                                  |  | Yes                                 | No                                  |
|--|-------------------------------------|-------------------------------------|--|-------------------------------------|-------------------------------------|
| 1. Noise Criteria Impacts*   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 17. Threatened/Endangered Species*   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. Change in Access or Access Control  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> Listed <input type="checkbox"/> Proposed  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 3. Change in Travel Patterns   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 18. Air Quality Impacts  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 4. Neighborhood or Service Impacts   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 19. Inconsistent With Air Quality Plan   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 5. Economic Disruption   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> SIP <input type="checkbox"/> TIP  |                                     |                                     |
| 6. Inconsistent W/Local or State Planning  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 20. Stream Alteration/Encroachment**   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 7. Minorities, Low Income Populations  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> IWDR <input type="checkbox"/> F&G <input checked="" type="checkbox"/> COE (404)       |                                     |                                     |
| 8. Displacements*  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 21. Flood Plain Encroachment*  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 9. Section 4(f) Lands-DOT Act 1966*<br>(i.e., Public Parks/Rec Areas/Trails,<br>Wildlife/Waterfowl Refuges, Wild or<br>Scenic Rivers, Historic Sites/Bridges,<br>Archaeological Resources) | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> Longitudinal <input checked="" type="checkbox"/> Traverse                             |                                     |                                     |
| 10. LWCF Recreation Areas/6(f) Lands*  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 22. Regulatory Floodway  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 11. Section 106-Nat. Hist. Preserv. Act*   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> PE Cert. & FEMA Approval <input type="checkbox"/> Revision                            |                                     |                                     |
| 12. FAA Airspace Intrusion**   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | 23. Navigable Waters**   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 13. Visual Impacts   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> CG (Sec 9) <input type="checkbox"/> COE (Sec 10) <input type="checkbox"/> Dept. Lands |                                     |                                     |
| 14. Prime Farmland*, Parcel Splits   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 24. Wetlands*  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 15. Known/Suspected "Hazmat" Risks   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> Jurisdictional** (404) <input checked="" type="checkbox"/> Non-Jurisdictional         |                                     |                                     |
| 16. Wildlife/Fish Resources/Habitat**  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 25. Sole Source Aquifer  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|  |                                     |                                     | <input type="checkbox"/> Exempt Project <input type="checkbox"/> Non-Exempt**                                  |                                     |                                     |
|  |                                     |                                     | 26. Water Quality, Runoff Impacts  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|  |                                     |                                     | 27. NPDES-General Permit   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|  |                                     |                                     | (If no, complete sediment-erosion control plan)  |                                     |                                     |

\*If yes to these items, supplemental reports or documentation are required (e.g., Relocation Report; Wetlands Determination/Finding; Fish and Wildlife Species List Update; SCS Form AD-1006, *Biological Assessment*, etc.)

\*\*If yes to these items, a letter of input is required from the appropriate agency.



**Recommendation**

- ☐ A. The project does not individually or cumulatively have a significant adverse effect on the human environment  
(Categorical Exclusion) ☐ 23 CFR 771.117(c), i.e., Special and Programmatic  
☐ 23 CFR 771.117(d), i.e., FHWA Approval
- ☒ B. There is insufficient information to support A above or no precedent exists. (Environmental Assessment)
- ☐ C. The project will result in a significant effect on the human environment. (Environmental Impact Statement)

Prepared By (Consultant, District Environmental Planner, or LHTAC Signature\*)

Date

Reviewed By (District Environmental Planner, Project Development Engineer, or LHTAC Signature\*)

Date

**\*One Signature by a Planner and one by Engineer or Consultant**

Construction Impacts Requiring Special Provisions

Project Description (if not attached)

**Hazardous Material (HM) Administrative Review**

Complete all sections. Attach additional sheets and/or maps as needed to provide information pertinent to the proposed project.

Project Number STP3330 (105)	Key Number 8630	District 3
Project Name/Location Idaho 16 Improvement Project- Emmett		

**Mark features involved in this project**

<input checked="" type="checkbox"/> New R/W	<input checked="" type="checkbox"/> Subsurface utility relocation
<input checked="" type="checkbox"/> Excavation	<input checked="" type="checkbox"/> Structures (buildings, bridges, etc.)
<input type="checkbox"/> Railroad involvement	<input checked="" type="checkbox"/> Other (list):

**Contacts** (Contact each of the following and provide information below)

	Contact Name	Date	Summary
EPA			
DEQ	Mr. Mark Van Kleek	June 2002	See ISA report, Entranco July 2002
Health Dept.			

**Review of Published Lists** (Review all lists. Check off as they are reviewed and note findings in right hand column)

<input checked="" type="checkbox"/> NPL	See ISA report, Entranco July 2002
<input checked="" type="checkbox"/> CERCLIS	See ISA report, Entranco July 2002
<input checked="" type="checkbox"/> CERCLIS/NFRAP	See ISA report, Entranco July 2002
<input checked="" type="checkbox"/> RCRA Corrective Actions	See ISA report, Entranco July 2002
<input checked="" type="checkbox"/> RCRA TSD	See ISA report, Entranco July 2002
<input type="checkbox"/> RCRA Generators	
<input type="checkbox"/> ERNS	
<input checked="" type="checkbox"/> SWLF	See ISA report, Entranco July 2002
<input checked="" type="checkbox"/> LUST	See ISA report, Entranco July 2002
<input checked="" type="checkbox"/> UST	See ISA report, Entranco July 2002

**Windshield Survey** (List and comment on suspect land uses/operations identified.)

Person(s) Performing Survey Kelly Kading	Survey Date June 2002
Results See ISA Report, Entranco, July 2002. Active LUST site located Northeast corner of SH16 and South Washington Av, North of project, south of Emmett. Plume extends beneath intersection. Active remediation system at site. Groundwater very shallow (3-5 feet below existing grade)	

**HM conclusion** (No evidence or low probability of encountering HM; evidence of probable HM (Phase I), warrants more detailed assessment/sampling/testing (Phase II); site will be avoided without further analysis, etc.)

Project warrants more detailed assessment of the Emmett Chevron / fmr Jarmin's Sinclair LUST site. Recommended PSI at the site to determine the extant and severity of impacts.

HM Review Conducted By (Print Name) Kelly Kading	Company Entranco
Signature 	Date July 8 2002

## ACCESS CONTROL DETERMINATION



Project Number	STP-CM-3330(105)		Key Number	8630		District	3	
Location	Ada & Gem Counties							
Route Number	State Highway 16			Functional Classification	Principle Arterial (Multiple Lane)			
Design Year	2030	ADT	18,100	DHV	1810	Design Speed	70, 60 mph	
<b>ACCESS CONTROL</b>								
Limits				Type				
MP 0.000 – MP 12.200				Type IV – Rural				
MP 12.2 – MP 13.927				Type IV – Urban				
<b>REMARKS</b>								
<p>Exceptions are requested for the following:</p> <ul style="list-style-type: none"> <li>All frontage and backage road access points are set back 660' from SH-16. This does not meet the current Type IV Minimum Approach Spacing of 1320'.</li> <li>The new access point ½ mile north of SH-44 and ¼ miles from the Floating Feather Rd. access point does not meet the rural access point spacing minimum. It is appropriate for the urban spacing.</li> <li>The Floating Feather Rd. access point is ¼ miles from the new access point mentioned above and ¼ miles from the Beacon Light Rd. access point. This does not meet the rural access point 1 mile spacing minimum. It is appropriate for the urban spacing. Both Floating Feather Rd. and Beacon Light Rd. are existing roadways.</li> <li>The five-lane section from Substation Rd. to SH-52 does not meet the urban Type IV access policy, which requires minimum approach spacing of ½ mile. Several existing approaches are spaced closer than ½ mile in this area. This section appears to be adequate from a capacity standpoint.</li> <li>The spacing between access points at Trumpet Lane and the Firebird Raceway entrance is roughly 4500'. The distance between the Firebird Raceway entrance and Chaparral Road is roughly 4400'. The access points do not meet the Type IV rural spacing requirements of 1 mile.</li> <li>The spacing between access points at Pollard Lane and the Beacon Light is roughly 4800'. The distance between the Pollard Lane and Deep Canyon is roughly 2600'. The access points do meet the Type IV urban access spacing requirement but is less than the rural requirement of 1 mile spacing. These existing approaches appear to be adequate from a capacity standpoint.</li> </ul>								
<b>RECOMMENDED BY</b>								
District Engineer						Date		
District Traffic Engineer						Date		
District R/W Supervisor						Date		
HQ Traffic Engineer						Date		
Roadway Design Engineer						Date		
<b>APPROVED BY</b>								
ACE (D)						Date		

Distribution: Original - Transportation Planning Administrator  
 Copies - HQ Traffic      Roadway Design      PDE District      Right of Way District      Traffic District



DIST     : PROJ ENG ENV PLAN MAT LENG

HQ: ENV SECT ENV RD

RECEIVED

RECEIVED

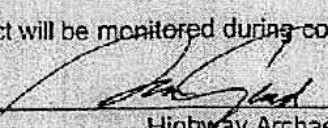
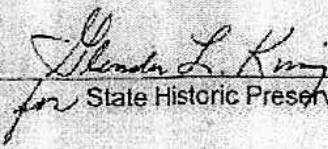
Idaho Transportation Department/State Historic Preservation Office

OCT 2 2003

## DETERMINATION OF SIGNIFICANCE AND EFFECT

DIST. NO. 3  
DIVISION OF HIGHWAYS

OCT 2 2003

Project Title		SH-16 Improvement Study			Project No.		STP-3330(105)	
District	3	Key No.	8630	County	Ada, Gem	Field Notes	Consultant Laurie Mauser	
CLEARANCE AUTHORIZED WITHOUT SURVEY PA <u>   </u> ER <u>   </u> Other <u>   </u>								
Determination of Eligibility			Site Numbers			Comments		
<input type="checkbox"/> No Sites								
<input checked="" type="checkbox"/> Not eligible			SH16-02, 03, 05-08, 10, 11, 13-16, 19-22, 01-19053, 01-19054, 10AA-172, 10GM-219, 10GM-172			See attached		
<input type="checkbox"/> Potentially eligible								
<input checked="" type="checkbox"/> Eligible			SH16-01, SH16-04, SH16-09, SH16-12, SH16-17, SH16-18, SH16-23, SH16-24, 01-019050, 01-019049, 01-15326			See attached		
Determination of Effect								
<input type="checkbox"/> No site(s)								
<input checked="" type="checkbox"/> There will be no effect to the following site(s) because:								
<u>Rationale:</u>								
<input type="checkbox"/> They are outside project area								
<input type="checkbox"/> They are outside impact zone								
<input type="checkbox"/> Final project plans will avoid them								
<input checked="" type="checkbox"/> NR character will not be changed								
SH16-09, 01-019050, 01-019049, 01-15326								
<input checked="" type="checkbox"/> Site will be affected as indicated below or in the attached explanation: SH16-01, SH16-04, SH16-12, SH16-17, SH16-18, SH16-23, SH16-24 are linear features that will be crossed by the project. These crossings will not be an adverse effect, but may require a 4(f) evaluation.								
<input type="checkbox"/> Project will be monitored during construction due to the potential for cultural resources.								
 Highway Archaeologist						September 17, 2003 Date		
SHPO Comment: I have reviewed the documentation and recommendations provided by ITD.								
<input checked="" type="checkbox"/> I agree with the above determination of eligibility and effect and with the conditions of compliance.								
<input type="checkbox"/> I agree with the above determinations of eligibility and effect given stipulations explained below or in the attached letter.								
<input type="checkbox"/> I disagree with the above determinations of eligibility and effect as explained below or in the attached letter.								
 for State Historic Preservation Officer						10/15/03 Date		

Idaho Transportation Department/State Historic Preservation Office  
**DETERMINATION OF SIGNIFICANCE AND EFFECT**

Project Title		Freeze Out Hill Passing Lanes, Gem Only			Project No.	STP-3330(102)
District	3	Key#	5082	County	Gem	Field Notes
						NPetersen
CLEARANCE AUTHORIZED WITHOUT SURVEY PA ___ ER ___ Other ___						
Determination of Eligibility		Site Numbers		Comments		
<input type="checkbox"/> No Sites <input checked="" type="checkbox"/> Not Eligible <input type="checkbox"/> Potentially Eligible <input checked="" type="checkbox"/> Eligible		FO-3, FO-4, FO-5, FO-6  FO-2, FO-7, (FO-1)10GM219		Old Freeze Out Rd (3 <sup>rd</sup> ); Black Canyon Canal, 1862 Goodale's Cut-off Wagon Rd		

**Determination of Effect**

☐ No sites:  
☒ There will be no effect to the following sites because:

Rationale Sites:

☒ Outside the project area: (FO-1)GM-10-219 1862 Goodale's Cut-off Wagon Rd

☐ Outside impact zone:

☐ Final project plans will avoid:

☒ NR character will not be changed: 1872 Wagon Rd  
 FO-2 Old Freeze Out Rd (3<sup>rd</sup>) 'use' under FHWA 4(f); FO-7 Black Canyon Canal ('use' under FHWA 4(f))

☒ Sites will be affected as indicated: 1872 Wagon Rd  
 FO-2 Old Freeze Out Rd (3<sup>rd</sup>) will lose 30m of 500m linear feature; FO-7 Black Canyon Canal will lose 40' of 30 m linear feature. No Adverse Effect. 4f 'use'.

☐ Project will be monitored during construction due to the potential for cultural resources.

\_\_\_\_\_  
 Highway Archaeologist 5/3/2002  
Date:

SHPO Comment: I have reviewed the documentation and recommendations provided by ITD.

- ☒ I agree with the above determination of eligibility and effect and with the conditions of compliance.
- ☐ I agree with the above determinations of eligibility and effect given stipulations explained below or in the attached letter.
- ☐ I disagree with the above determinations of eligibility and effect as explained below or in the attached letter.

\_\_\_\_\_  
 State Historic Preservation Officer

6/11/02  
 Date



## U.S. Department of Agriculture

## FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request			
Name Of Project		Federal Agency Involved			
Proposed Land Use		County And State			
PART II (To be completed by NRCS)		Date Request Received By NRCS			
Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply - do not complete additional parts of this form).		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Acres Irrigated	Average Farm Size
Major Crop(s) Alfalfa	Farmable Land In Govt. Jurisdiction Acres: 136,400 %			Amount Of Farmland As Defined In FPPA Acres: 88,985 %	
Name Of Land Evaluation System Used Soil Survey	Name Of Local Site Assessment System Local	Date Land Evaluation Returned By NRCS 9/16/02			
PART III (To be completed by Federal Agency)		Alternative Site Rating			
		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly					
B. Total Acres To Be Converted Indirectly					
C. Total Acres In Site		0.0 340	0.0	0.0	0.0
PART IV (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland		58			
B. Total Acres Statewide And Local Important Farmland		0			
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted		100.65			
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value		0			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)		0 100	0	0	0
PART VI (To be completed by Federal Agency) Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))		Maximum Points			
1. Area In Nonurban Use		15			
2. Perimeter In Nonurban Use		10			
3. Percent Of Site Being Farmed		10			
4. Protection Provided By State And Local Government		20			
5. Distance From Urban Builtup Area		0			
6. Distance To Urban Support Services		0			
7. Size Of Present Farm Unit Compared To Average		10			
8. Creation Of Nonfarmable Farmland		0			
9. Availability Of Farm Support Services		5			
10. On-Farm Investments		10			
11. Effects Of Conversion On Farm Support Services		0			
12. Compatibility With Existing Agricultural Use		0			
TOTAL SITE ASSESSMENT POINTS		160	0 80	0	0
PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)		100	0 100	0	0
Total Site Assessment (From Part VI above or a local site assessment)		160	0 80	0	0
TOTAL POINTS (Total of above 2 lines)		260	0 180	0	0
Site Selected:		Date Of Selection		Was A Local Site Assessment Used? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Reason For Selection:					



## Part VI Site Assessment Criteria

### Rating Rationale

1. Due to the limited available mapping data, it was not feasible to calculate the exact percentage of the land used within one mile of the project. An estimation was made from looking at the available GIS data, which contain land uses, as well as personal knowledge of the Action Area from field surveys. This confirmed that more than 90% of the land within 1 mile is non-urban use. Therefore a score of 15 of 15 was applied to this criterion.
2. According to measurements on the GIS land use maps, more than 90% of the perimeter is in non-urban use along the project in both Ada and Gem counties. Therefore a score of 10 of 10 was applied to this criterion.
3. The percent of the action area that has been farmed for more than 5 of the last ten years was estimated using the following. From MP 0 to MP 3, the area meeting this criterion is equal to 100%. From MP3 to MP12, the area meeting this criterion is equal to 0%. From MP12 to the intersection of SH 52, the area meeting this criterion is equal to 50%. These values were estimated from existing GIS data and aerial photography. Therefore, 50% of the new ROW is currently being farmed and would be converted to non farmland use, thus a score of 10 of 20 was applied to this criterion.
4. Based on Ada and Gem counties comprehensive plans the land in the Action Area is zoned rural residential, rural preservation, and agricultural zone. In the Ada County Comprehensive Plan, the RR land use goal statement protects Unique and Prime farmland from residential development. Therefore the farmland is protected and this criterion is given a score of 20 of 20.
5. & 6. Both questions are not applicable to corridor type projects and receive a 0 of 0 score. The subsequent 30 possible points are distributed between questions 8 & 11.
7. The total acreage of conversion (340 acres\*) is larger than the average farm size for Ada (189 ac) and Gem (331 ac) counties, and therefore receives a score of 10 of 10 points.
8. The proposed alignment in both Ada and Gem counties follows the existing alignment and would not create any additional nonfarmable farmland, nor interfere with current land use patterns. Therefore a score of 0 of 25 was applied to this criterion.
9. The project area has a significant amount of farmland support services, therefore a score of 5 of 5 was applied to this criterion.
10. The project contains a moderate amount of on-farm investments. Therefore a score of 10 of 20 was applied to this criterion.
11. The project will not have an effect on the conversion of Farm Support Services; therefore a score of 0 of 25 was applied to this criterion.
12. The proposed alignment in Ada and Gem counties follows the existing alignment of Idaho 16 and supports existing land uses and will not contribute to any change in the zoning. Therefore a score of 0 of 10 was applied to this criterion.

\*This number will be rechecked when this form is reviewed and approved by NRCS.

# NPDES Storm Water Permit Project Checklist For Construction\*



Project Number STP-Cm-3330 (105)	Key Number 8630	Work Authority P023170
Location Ada(Star) and Gem Counties (Emmett)		

**An NPDES Storm Water Discharge Permit is required for this project only if the answers to both questions below are yes.**

Will there be 1 acre of ground disturbance on the project? (To determine the total acreage of ground that will be disturbed, use the Ground Disturbing Activities Checklist below to calculate the total acreage of disturbance on the project.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Will the project discharge storm water to waters of the U.S.? (See the reverse side for Definition of Waters of the U.S.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

If the answer to the second question is no, provide a written explanation in the Comments section on the reverse side of this form as to why there will be no discharge.

(If the project does not discharge off-site to waters of the U.S., an NPDES Storm Water Discharge Permit is not required.)

Ground Disturbing Activities Checklist		<u>Area Disturbed</u>
Clearing	This includes areas of vegetative removal, topsoil removal, (see Definition of Soil on reverse side), sideslope grading, shoulder construction, and fence installation, removal, or replacement.	_____
Grubbing	This includes both hand- and machine-removed vegetative materials such as roots and root balls.	_____
Grading	All areas disturbed by grading must be included.	_____
Excavation	Excavated areas are figured on the surface area of disturbance, including that disturbed by heavy equipment working in the area.	_____
<b>Total Area</b>		<b>372</b>

\*Construction does not include maintenance activities, such as ditch cleaning, shoulder reshaping, etc., unless there is new construction included as part of the maintenance project.





# CORRESPONDENCE AND SUPPORT DOCUMENTATION

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The following correspondences and support documentation are included in this section:

- ♦ Letter to Idaho Department of Environmental Quality (IDEQ) Page 145
- ♦ Memo to Idaho Department of Fish and Game (IDFG) Page 147
- ♦ Letter from Idaho Conservation Data Center (ICDC) Page 148
- ♦ Letter from the U.S. Army Corps of Engineers, Walla Walla District Page 150
- ♦ Letter from the Natural Resources Conservation Service (NRCS) Page 154
- ♦ Letter from Idaho Transportation Department (ITD) attachment:  
Environmental Evaluation and No Effect Determination Page 156
- ♦ Memo to IDFG – Conservation Data Center Page 158
- ♦ Letter from the U.S. Fish and Wildlife Service Page 159

Page intentionally blank.

RE: SH 16 Improvement Study  
ITD Project No.: STP-CM-3330 (105)  
ITD Key No.: 8630

Dear Jack Gantz:

The Idaho Transportation Department (ITD) is planning a corridor improvement project on the entire length of State Highway (SH) 16, from SH 44 (State Street) in Eagle to SH 52 (Washington Street) in Emmett. The project crosses from Ada County in the south to Gem County in the north. The total project length is 14.1 miles. This project will involve widening the existing roadway as well as the addition of either frontage or backage roads. Project vicinity and location maps are attached for your reference. The project includes portions of -

T4N R1W Sections 3, 4, 9, 10  
T5N R1W Sections 4, 5, 8, 9, 16, 17, 21, 22, 28, 33  
T6N R1W Sections 7, 8, 9, 16, 17, 18, 20, 21, 28, 29, 32

#### PROJECT PURPOSE and NEED

The purpose of this project is to plan improvements on Idaho 16 from the projected 2030 traffic volumes and to preserve Idaho 16's function as a principal arterial. These improvements will include the creation and / or realignment of access and collector roads, upgrading the existing highway from two lanes to four lanes with turning lanes. The improvements will include evaluating existing and future accesses according to the current ITD Access Policy.

Improvements to Idaho 16 are needed to improve highway safety and capacity by:

- ☐ Improving substandard roadway geometrics
- ☐ Alleviating congestion by providing adequate capacity and level of service for 2030 traffic volumes.
- ☐ Evaluating existing and future accesses according to the current ITD Access Policy.

The ITD has retained ENTRANCO to prepare the environmental determination for this project. The environmental elements of biology, air, noise, hazardous materials, cultural, and socioeconomic analyses are being evaluated as part of the project. With this letter, we are asking you to provide us with any comments you may have with respect to the environmental components of the project.



Please respond in a letter, email, or fax as soon as possible. If you have any questions about this project please call me at (208) 336-9900. Thank you for your input.

Sincerely,  
ENTRANCO

Kurt Wald  
Environmental Scientist  
[kwald@entranco.com](mailto:kwald@entranco.com)  
(208) 339-9360 (fax)

Enclosures

# INTRA-OFFICE MEMO



ENTRANCO

Project Name: SH 16 Improvement Study Page 1 of 1

Project No: \_\_\_\_\_ By: Maria Shepherd Date: 4/11/03

- ☒ Tel. Message To/From: Eric Leitzinger Phone No: (208) 465-8465
- ☐ Memo to File Of: Idaho Department of Fish and Game
- ☐ Mtg. Notes Attendees: \_\_\_\_\_
- ☐ Other: \_\_\_\_\_

## Subject:

Response to coordination letter

## Message:

I called Eric to ask if he received the coordination letter and to ask if he had any comments on the project. He said he did receive the letter and asked if we had gotten a species list from the Conservation Data Center. I told him we had done that early on in the project and he said that he doesn't have any additional comments. he said we don't need to go through him, we can just get that CDC information and that will constitute the IDFG's comments. I told him I may need some additional information about deer and upland gamebirds in the area and he said he could get us that information. I told him I'd call back once the alternatives were decided on.

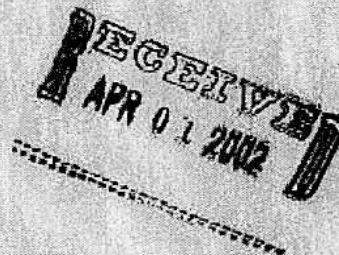


## IDAHO CONSERVATION DATA CENTER



Idaho Department of Fish and Game • 600 South Walnut • P.O. Box 25, Boise, Idaho 83707 • (208) 334-3402 • FAX 334-2114

03/29/02



Maria Shepherd  
Biologist  
Entranco, Inc.  
3050 North Lakeharbor Drive, Suite 200  
Boise, ID 83703

RE: Data request for ITD project SH 16 - Project No. STP-3330(105), Key No: 8630

Dear Maria:

I am responding to your request for information on special status species or their habitat within the above-referenced project area.

According to the CDC Database, the following species are known to occur within or immediately adjacent to your project area:

- *Lepidium papilliferum* (C)
- *Allium caseae* (SC)
- *Cyperus rhicularis* (State W)
- Bald Eagle (LT) - wintering area
- Long Billed Curlew (SC)
- Long Billed Curlew Habitat ACEC

In addition, pygmy rabbit (W) is possible is big sagebrush habitat is present.

I have also enclosed a predicted vertebrate species list based on Idaho GAP Analysis for your information. Should you need additional information on habitat or impacts to habitat, you will need to contact Bob Martin, Environmental Staff Biologist for Region 3, at (208) 465-8465. If you have any questions on the enclosed information, feel free to give me a call at the above telephone number.

Sincerely,

Shelley Cooke  
Botanical Information Manager

Please note: The quantity and quality of data collected by the Idaho Conservation Data Center (CDC) are dependent on the research and observations of many individuals and organizations. In most cases, these data are not the result of comprehensive or site-specific field surveys; many natural areas in Idaho have never been thoroughly surveyed. For these reasons, the CDC cannot provide a definitive statement on the presence, absence, or condition of biological elements in any part of Idaho. CDC reports summarize the existing information known to the CDC at the time of the request regarding the biological elements or locations in question. They should never be regarded as final statements on the elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments.



# GAP DATA REQUEST

## Predicted Habitat within Known Current Range

DATE: 3/30/02

FOR: Maria Shepherd  
Entranco, Inc.

RE: ITD Project No. STP-3330(105)

Key No. 8630

Location: SH 18 Corridor, between Eagle and Emmett

COMNAME	SCINAME	ST_STATUS*	FED_STATUS**
Western toad	Bufo boreas	SC	W/SC
Woodhouse's toad	Bufo woodhousei		W
Northern leopard frog	Rana pipiens	SC	SC
Bald eagle	Haliaeetus leucocephalus	E	LT
Ferruginous hawk	Buteo regalis	P	W
Peregrine falcon	Falco peregrinus	E	
Mountain quail	Oreortyx pictus	SC	SC
Long-billed curlew	Numenius americanus	P	SC
Common barn-owl	Tyto alba	P	
Western burrowing owl	Speotyto cunicularia hypugaea	P	SC
Loggerhead shrike	Lanius ludovicianus	SC	SC
Scotts oriole	Icterus parisorum	P	
Yuma myotis	Myotis yumanensis		W
Western small-footed myotis	Myotis ciliolabrum		W
Western pipistrelle	Pipistrellus hesperus	SC	W
Townsend's big-eared bat	Plecotus townsendii	SC	W

### STATE STATUS

SC = SPECIES OF SPECIAL CONCERN

P = PROTECTED NONGAME SPECIES

T = THREATENED

E = ENDANGERED

### FEDERAL STATUS

W = WATCH

SC = SPECIES OF CONCERN

PT = PROPOSED THREATENED

LT = LISTED THREATENED

PE = PROPOSED ENDANGERED

LE = LISTED ENDANGERED

NOTE: THE FEDERAL HIGHWAY ADMINISTRATION REQUESTED THAT THE IDAHO CONSERVATION DATA CENTER (CDC) PROVIDE SPECIES LISTS BASED ON HABITAT IN ADDITION TO THE STANDARD SPECIES LIST BASED ON KNOWN OCCURRENCES. IT IS NOT POSSIBLE FOR THE CDC TO PRODUCE LISTS BASED STRICTLY ON HABITAT. HOWEVER, THE IDAHO GAP ANALYSIS PROJECT'S (GAP) VERTEBRATE DISTRIBUTION MODELS ARE A REASONABLE SUBSTITUTE, AND THE FOLLOWING SPECIES LIST IS BASED ON THOSE MODELS. IT IS IMPORTANT FOR YOU TO UNDERSTAND THAT THE IDAHO GAP DOES NOT INCLUDE RARE PLANTS OR INVERTEBRATES. THE VERTEBRATE DISTRIBUTIONS ARE CONSIDERED "PREDICTED" BECAUSE (1) THEY ARE GEOGRAPHIC INFORMATION SYSTEM REPRESENTATIONS BASED ON INTERSECTIONS OF KNOWN OCCURRENCES, COVER TYPE, AND OTHER HABITAT LAYERS AND (2) THEY HAVE NOT BEEN GROUND TRUTHED.

\*see <http://www2.state.id.us/fishgame/itdg.htm> for status definitions

\*\*see <http://www2.state.id.us/fishgame/usfws.htm> for status definitions



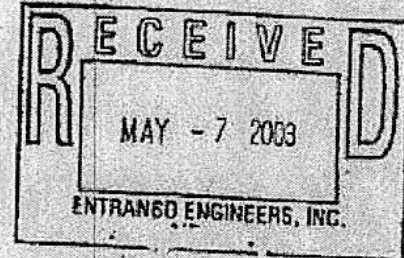
REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
WALLA WALLA DISTRICT, CORPS OF ENGINEERS  
BOISE REGULATORY OFFICE  
304 NORTH EIGHTH STREET, ROOM 140  
BOISE IDAHO 83702-5820

May 5, 2003

Operations Division

SUBJECT: NWW No. 022300580, ITD Key No. 8630



Mr. Greg Vitely  
Idaho Transportation Department  
P.O. Box 8028  
Boise, Idaho 83714

Dear Mr. Vitely:

Our approved jurisdictional determination indicates that the site of the proposed SH 16 Improvement project located near Emmett in Gem County, Idaho, contains a water of the United States that is regulated under Section 404 of the Clean Water Act. A copy of our basis for determination is enclosed. We reviewed the wetland delineation map entitled Idaho 16 Improvement Study, - Alternative 1A (DRAFT), dated Feb 2003, prepared by Entranco, and have determined that the map accurately delineates the extent of waters of the United States, for your project. Please note the only jurisdictional water of the U.S., within the project limits is Willow Creek. A copy of the approved map is enclosed. This jurisdictional determination is valid for a period of 5 years from the date of this letter unless new information warrants revision of the determination before the expiration date.

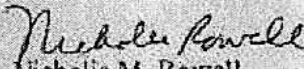
We are enclosing an appeals form that explains the options you have if you do not agree with this approved jurisdictional determination. If you decide to appeal this determination, you need to send the form to the Division Engineer, Northwestern Division, so that he receives it within 60 days of this letter. If you have new information you want us to consider, you may send it to the Regulatory Branch, Walla Walla District, at the letterhead address before you file the appeal.

Section 404 of the Clean Water Act (33 U.S.C. 1344) requires a Department of the Army permit be obtained for the discharge of dredged or fill material into waters of the United States, including wetlands. This includes excavation activities that result in the discharge of dredged material and destroy or degrade waters of the United States. If your proposed project will involve discharging dredged or fill material into Willow Creek or adjacent wetlands, you will need to obtain a Department of the Army permit before you start work. We are enclosing an application form and pamphlet containing instructions for completing your application.



If you have any questions, please contact me at 208-345-2287. A copy of this letter is being sent to: Mr. John Olson, Environmental Protection Agency, Idaho Operations Office, 1435 North Orchard Street, Boise, Idaho 83706; and Mr. Kurt Wald, Entranco, 3050 North Lakeharbor Drive, Suite 200, Boise, Idaho 83703.

Sincerely,

  
Nichole M. Rowell  
Regulatory Project Manager

Enclosures



# JURISDICTIONAL DETERMINATION

APPLICANT: Idaho Transportation Department

PROJECT LOCATION/WATERWAY: Sec. 16, T.5N., R.1W., B.M., Gem County, ID/Willow Creek, Pioneer Canal/Middleton Canal; Foothill Ditch; Farmer's Union Canal; Black Canyon Canal and Last Chance Canal. Wetlands adjacent to said canals; and an unnamed storm water ditch

FILE NUMBER: NWW No. 022300580, ITD Key No. 8630

PROJECT REVIEW COMPLETED: ☒ Office ☒ Field

Jurisdictional Determination (JD): (For sites regulated under 33 CFR 320-330)

- ☐ Preliminary JD - Based on available information, ☐ there appear to be or ☐ there appear to be no waters of the United States on the project site. A preliminary JD is not appealable.
- ☒ Approved JD - ☒ There are or ☐ there are no waters of the United States on the project site, as identified in the basis of jurisdictional determination indicated below. An approved JD is an appealable action (Reference 33 CFR 331). (Note: JDs prepared by the Environmental Protection Agency are not appealable to the Corps of Engineers)

Basis of Jurisdictional Determination: (Reference: 33 CFR 328.3(a))

- ☐ (1) The presence of waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.
- ☐ (2) The presence of interstate waters including interstate wetlands.
- ☐ (3) The presence of other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could effect interstate commerce including any such waters:
- ☐ (i) which are or could be used by interstate or foreign travelers for recreational or other purposes.
  - ☐ (ii) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
  - ☐ (iii) which are or could be used for industrial purposes by industries in interstate commerce.
- ☐ (4) Impoundments of waters defined as a Water of the U.S.
- ☒ (5) The presence of a tributary to a water identified in (1) - (4) above.
- ☐ (6) The presence of territorial seas.
- ☐ (7) The presence of wetlands adjacent<sup>2</sup> to interstate or other waters of the U.S., except for those wetlands adjacent to other wetlands.

Rationale for Basis: (Applies to any boxes checked above) Willow Creek flows into the Boise River. The Boise River flows into the Snake River. The Snake River is an interstate water of the U.S., subject to jurisdiction under Category 2 above. Therefore, Willow Creek is a water of the U.S. subject to jurisdiction as a tributary to an interstate water under Category 5. Jackass Gulch has no defined bed or banks, no ordinary high water mark, and no evidence of scour. Jackass Gulch does not have a surface connection to Willow Creek and no discernable subsurface connection. Therefore, Jackass Gulch is not a water of the U.S. The following irrigation ditches are not waters of the U.S. subject to jurisdiction: Pioneer Canal; Middleton Canal; Foothill Ditch; Farmer's Union Canal; Black Canyon Canal and Last Chance Canal. Based on 51 FR 41217, November 13, 1986, non-tidal drainage and irrigation ditches excavated in dry land are generally not considered to be waters of U.S. The wetlands adjacent to these irrigation ditches are also not considered to be waters of the U.S. subject to jurisdiction. Based on 51 FR 41217, November 13, 1986, artificially irrigated areas which would revert to upland if the irrigation ceased are generally not considered to be waters of the U.S. The unnamed storm water ditch in the NE corner of the intersection between SH 16 and SH 44 is not a water of the U.S. subject to jurisdiction. Based on 51 FR 41217, November 13, 1986. Non-tidal drainage ... ditches excavated in dry land are generally not considered to be waters of the U.S.

Lateral Extent of Jurisdiction: (Reference: 33 CFR 328 and 329)

- ☒ Ordinary High Water Mark indicated by:
- ☒ clear, natural line impressed on the bank
  - ☐ the presence of litter and debris
  - ☐ changes in the character of soil
  - ☐ destruction of terrestrial vegetation
  - ☒ shelving
  - ☐ other: \_\_\_\_\_
- ☐ High Tide Line indicated by:
- ☐ oil or seam line along shore objects
  - ☐ fine shell or debris deposits (foreshore)
  - ☐ physical markings/characteristics
  - ☐ tidal gauges
  - ☐ other: \_\_\_\_\_
- ☐ Mean High Water Mark indicated by:
- ☐ survey to available datum; ☐ physical markings; ☐ vegetation lines/changes in vegetation types
- ☐ In ocean or coastal area, site is within a zone three geographic (nautical) miles seaward of the baseline<sup>3</sup>
- ☐ Wetland, as shown on the attached wetland delineation map and/or in a jurisdictional report prepared by: \_\_\_\_\_

☐ Additional supporting information attached:

Prepared: Nicholle Rowell

Date: May 5, 2003

<sup>1</sup>Wetlands are identified and delineated using the methods and criteria established in the Corps Wetland Delineation Manual (87 Manual) (i.e., occurrence of hydrophytic vegetation, hydric soils and wetland hydrology).

<sup>2</sup>The term "adjacent" means bordering, contiguous, or neighboring. Wetlands separated from other waters of the U.S. by man-made dikes or barriers, natural river berms, beach dunes, and the like are also adjacent.

<sup>3</sup>Baseline is the line on the shore reached by the ordinary low tides from which the distance of three miles is measured.

Form Revised 4/29/03

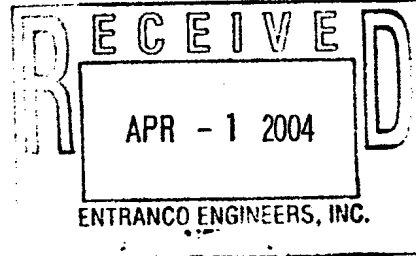
United States Department of Agriculture



Natural Resources Conservation Service  
132 SW 5<sup>th</sup> Avenue, Meridian, ID 83642-2994  
Telephone: 208-888-1890 FAX: 208-888-1538

30 March 2004

Kurt Wald  
Project Manager  
Entranco  
3050 North Lakeharbor Lane, Suite 200  
Boise, ID 83703



Re: AD-1006  
SH16 Corridor Study

Dear Mr. Wald,

We received your letter of February 19<sup>th</sup> which states the selection of alternative 1c for the SH 16 Corridor Study, and requests a review of the site assessment criteria. The USDA-NRCS is not required to review the completed AD-1006 form, but we do request a copy of the completed form for our files. Thank you for providing the additional information along with the completed AD-1006.

If you have any questions please call me at (208) 888-1890 ext. 114.

Sincerely,

A handwritten signature in cursive script, reading "Leah Juarros".

Leah Juarros  
Resource Soil Scientist  
USDA-NRCS



**MEMORANDUM**

**Date:** April 27, 2004  
**To:** Leah Juarros- Resource Soil Scientist  
**From:** Kurt Wald  
**Subject:** Idaho 16 Improvement Project- AD 1006 form

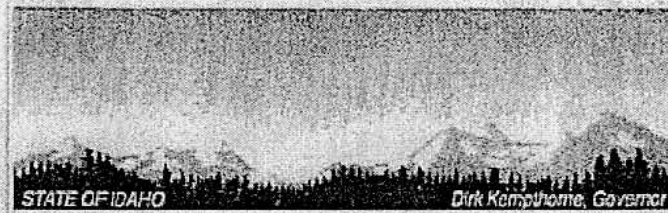
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Leah,

Thanks for your response to our letter. We have enclosed the final AD 1006 for your records as you requested. Should you need additional information please contact me.

**Kurt Wald**

Project Manager



TRANSPORTATION DEPARTMENT  
DISTRICT 5 • P.O. BOX 9028 • BOISE, ID • 83707-2028 • (208) 354-8300

WASHINGTON GROUP  
INTERNATIONAL

OCT 24 2003

BOISE, IDAHO

October 22, 2003

Mr. John Stone P.E.  
Deputy Project Manager  
Washington Infrastructure Services Inc.  
P.O. Box 73720 Park Boulevard  
Boise ID 83729

Re: Project No.: STP-3330(105)  
Key No. 8630  
Location: SH-16, Improvement Study

Subject: DETERMINATION OF SIGNIFICANCE AND EFFECT CONCURRANCE

Dear Mr. Stone:

Attached is the Determination of Significance and Effect (ITD-1500A) that has been reviewed by the State Historic Preservation Office (SHPO). SHPO agreed with your determination of eligibility and effect with the conditions of compliance on October 15, 2003.

If you have any questions or comments, please call me at 334-8901.

Sincerely,

Bruce Harral  
Project Manager

BQH: 106 approved

- An Equal Opportunity Employer -

**ENVIRONMENTAL EVALUATION  
AND  
NO EFFECT DETERMINATION**

**FOR**

**PROJECT NO. STP-3330(103)**

**KEY NO. 8429**

**SH- 16, FIREBIRD RACEWAY SOUTH**

**ADA COUNTY**

**SUBMITTED BY**

**ITD DISTRICT 3**

**SEPTEMBER 2003**

Approved: \_\_\_\_\_

FEDERAL HIGHWAY ADMINISTRATION

Date

10-3-03

FHWA determines project will have "no effect" on the listed  
threatened + endangered species. Also, we determine that in  
accordance w/ 36 CFR 800, "No historic properties" will be affected  
by this project.



# INTRA-OFFICE MEMO



ENTRANCO

Project Name: SH 16 Corridor Study Page 1 of 1

Project No: \_\_\_\_\_ By: Maria Shepherd Date: 8/9/02

☒ Tel. Message To/From: Shelley Cooke – Botanical Information Manager Phone No: 208 334-3402

☐ Memo to File Of: Idaho Department of Fish and Game – Conservation Data Center

☐ Mtg. Notes Attendees: \_\_\_\_\_

☐ Other: \_\_\_\_\_

**Subject:**

*Cyperus rivularis* and long-billed curlew

**Message:**

The *Cyperus rivularis* occurrence is on an island in the Boise River, so it's out of the project area.

The long-billed curlew ACEC was established in 1988 by the Lower Snake River District of the BLM. It's 61,000 acres of rolling valleys between the Boise, Payette and Snake Rivers. The annual rangeland is prime nesting habitat.

There are two occurrences of long-billed curlew in the project area –

One occurrence at T5N, R1W, an area south of the Payette River, east to Pearl and north of SH 44. In 1984-5 the BLM observed high densities of nesting curlews in the Little and Big Gulch Creek south and southeast of Emmett.

One occurrence at T6N, R1W, Sections 20 and 21. Old Freezeout Hill, at the top of the grade. In 198? Two sites were found containing 1-100 birds, and five sites containing 100-1000 birds.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

RECEIVED

Snake River Fish and Wildlife Office  
87 S Vinnell Way, Suite 368  
Boise, Idaho 83709

JUN - 4 2004

DIST. No. 8  
DIVISION OF HIGHWAYS



Pamela Lowe  
District Engineer  
Idaho Transportation Department - District 3  
(Attention: Greg Vitley)  
P.O. Box 8028  
Boise, Idaho 83707-2028

JUN 01 2004

Subject: 90-Day Species List Update  
File #912.0400 SP #1-4-04-SP-415

Dear Ms. Lowe:

The Fish and Wildlife Service is writing to update species list 1-4-04-SP-263 of March 5, 2004, for the Idaho Transportation Department - District 3. There are changes to the previous list. We have provided an updated Owyhee County list. Please replace your previous copy with the updated version. This letter officially updates species list number 1-4-04-SP-263 and provides you with a new number 1-4-04-SP-415. You should refer to the new number in subsequent correspondence and documentation.

Information concerning Federal agency obligations under the Endangered Species Act has been provided to you in the past. If you would like us to send you any of this information again or if you have questions, please contact Mark Robertson of my staff at (208) 378-5287. If you have questions regarding species under the National Marine Fisheries Service (NOAA Fisheries) jurisdiction, please call Nikki Leonard at (208) 378-5708.

Thank you for your continued interest in endangered species conservation.

Sincerely,

*for*   
Jeffery L. Foss, Supervisor  
Snake River Fish and Wildlife Office

cc: ITD-HQ, Boise (Clark)  
FHWA, Boise (Jorgenson, Inghram)  
NOAA Fisheries, Boise (Leonard)  
IDFG, Nampa (Leitzinger)  
IDFG, Jerome (McDonald)  
LHTAC, Boise (Flatz)

# REFERENCES

---

## Published Documents

### Ada County

- 2003 Ada County Code – Article F. Flood Hazard Overlay District.

### Ada County Highway District

- 2003 NPDES Municipal Separate Storm Sewer System Annual Report. Permit Year 2002-2003. NPDES Permit No. IDS-02756-1.

### American Association of State Highways and Transportation Officials (AASHTO)

- 2001 A Policy on Geometric Design of Highways and Streets.

### Bionomics

- 2003a Section 4(f) Evaluation of New Canal Crossings.  
2003b Programmatic Section 4(f) Evaluation of Existing Canal Crossings.

### COMPASS (Community Planning Association of Southwest Idaho)

- 2004 Destination 2025 Ada County.  
2003 Canyon County Long-Range Transportation Plan: Moving People: 2025.

### Entranco, Inc.

- 2004 Conceptual Wetland Mitigation Plan. Idaho 16 Improvement Study. Prepared for Idaho Transportation Department, District 3.  
2003a Noise Discipline Report. Idaho 16 Improvement Study. Prepared for Idaho Transportation Department, District 3.  
2003b Wetlands Discipline Report. Idaho 16 Improvement Study. Prepared for Idaho Transportation Department, District 3.  
2003c Rare Plant Survey. Idaho 16 Improvement Study. Prepared for Idaho Transportation Department, District 3.  
2003d Land Use/Farmland and Irrigation Discipline Report. Idaho 16 Improvement Study. Prepared for Idaho Transportation Department, District 3.  
2003e Environmental Justice/Displacement and Relocation Discipline Report. Idaho 16 Improvement Study. Prepared for Idaho Transportation Department, District 3.  
2002 Initial Site Assessment. Idaho 16 Improvement Study. Prepared for Idaho Transportation Department, District 3.



## Executive Order 11988

1977 Floodplain Management.

## Gem County

2003 Ordinance No. 87-3 – An Ordinance of the Board of County Commissioners, Gem County Idaho Providing for Flood Damage Prevention.

## Idaho Administrative Code

2003 Chapter 58.01.02. Water Quality Standards and Wastewater Treatment Requirements.

## Idaho Department of Environmental Quality

2004 Wintertime Air Pollution Response Plan.

2003 Public Draft Lower Boise River TMDL Implementation Plan.

2001 Project Level Air Quality Screening, Analysis, and Documentation for Roadway Projects in Idaho.

2001 Catalogue of Stormwater Best Management Practices for Idaho Cities and Counties. 2nd Edition.

2001 Lower Payette total Maximum Daily Load Implementation Plan and Addendum to the Lower Payette River Subbasin Basin Assessment and Total Maximum Daily Load.

1999 Assessment of Sources of Elevated Nitrate in Ground Water in Northwest Ada County, Idaho, Using environmental Isotopes. Prepared in cooperation with the Idaho State Department of Agriculture. Ground Water Quality Technical Report No. 11.

1999 Lower Boise River TMDL – Subbasin Assessment, Total Maximum Daily Loads.

## Idaho Soil Conservation Commission

2003 Lower Boise River Implementation Plan – Draft I – Appendix 8. Willow Creek Subwatershed Agricultural TMDL Implementation Plan.

## Idaho Transportation Department (ITD)

2003 Environmental Process Manual.

2001 Erosion and Sediment Control Manual – Best Management Practices.

1998 Environmental Manual.

## Idaho Transportation Department/State Historic Preservation Office

2003 Determination of Eligibility and Effect.

Mauser, Laurie

- 2003 Archaeological and Historical Survey Report – Idaho Archaeological Survey for the Idaho 16 Improvement Study and Corridor Preservation – Project No. STP-3330 (105), Key No. 8630.

Peterson

- 2002 Archaeological and Historic Survey Report – Idaho Archaeological Survey – Freezeout Hill Passing Lanes Project Cultural Resource Inventory.

Washington Infrastructure Services

- 2003 Air Quality Technical Report – Idaho 16 Improvement Study – Project No. STP-CM-3330(105) – Key No. 8630.
- 2003 Preliminary Drainage Study for Idaho 16 Improvement Study. Prepared for the Idaho Transportation Department.
- 2002 Technical Memorandum #1. Idaho 16 Improvement Study – Project No. STP-3330 (105), Key No. 8630. Prepared for the Idaho Transportation Department.
- 2002 Phase I Geologic Reconnaissance Report – Idaho 16 Improvement Study. Project No. STP-CM-3330 (105) Key No. 8630.

U.S. Environmental Protection Agency

- 2002 2002 Base Year Emission Inventory SIP Planning: 8-hour Ozone, PM-2.5 and Regional Haze Programs.

## Personal Communications

Debolt, Ann, BLM Four Rivers Field Office Botanist, communications with Maria Shepherd of Entranco 2002.

Eckles, Craig, City of Star, conversation with Kurt Wald of Entranco on June 29, 2004.

Evans-Turner, Teena, Evans Realty LLC, conversation with Erik Farstad of Entranco on October 30, 2003.

Guerra, Vicky Jewell, ITD Headquarters, Environmental Planner, conversation with Kurt Wald of Entranco on June 2004.

Lish, Debra, Emmett Planning and Zoning. Conversation with Kurt Wald of Entranco, April 2004.

Mitchell, Nate, Mayor of Star. Conversation with Kurt Wald of Entranco on June 25, 2004.

Ziman, Paul, FHWA Operations Engineer, comments on Idaho 16 EA submitted to ITD, District 3. May 15, 2004.

# LIST OF PREPARERS

Name/Company	Discipline/Role
Kurt Wald <i>Entranco</i>	Project Manager, Environmental Studies, Environmental Assessment author, Noise
Dale Anderson <i>Entranco</i>	QA/QC Review, Environmental Assessment author
Dave Morency <i>Entranco</i>	Environmental Assessment Author Visual Quality
Erik Farstad <i>Entranco</i>	Land Use Farmland and Irrigation Displacements and Relocations Secondary and Cumulative Impacts
Brad Thiele <i>Entranco</i>	Wetlands
Kelly Kading <i>Entranco</i>	Initial Site Assessment (Hazardous Materials)
Maria Shepherd <i>Entranco</i>	Vegetation Wildlife Threatened and Endangered Species Rare Plant Survey
Katherine Probert <i>Entranco</i>	Technical Editor and Compiler
Robert LeClair <i>Entranco</i>	GIS and Graphics
Aimee Hill <i>Bionomics</i>	Individual Section 4(f) Programmatic Section 4(f)
Jeanne Pepis <i>Bionomics</i>	Individual Section 4(f) Programmatic Section 4(f)
John Stone <i>Washington Infrastructure Services</i>	Project Manager Air Quality Traffic Preliminary Design
Laurie Mauser	Cultural and Historic Resources
Nick Petersen <i>ITD, District 3, Environmental Planner</i>	Cultural and Historic Resources
Bruce Harral, PE <i>ITD, District 3</i>	Project Manager
Larry Growney, PE <i>ITD, District 3</i>	Reviewer
Kim Just <i>ITD Headquarters</i>	NEPA reviewer
Paul Ziman <i>FHWA, Operations Engineer</i>	Reviewer



## **APPENDIX A**

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# **ALTERNATIVE DEVELOPMENT**

# ALTERNATIVES SCREENING METHODOLOGY

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## Project Purpose

The purpose of this project is to meet capacity and safety requirements on SH- 16, from its intersection with SH-44 to Mile Post 13.97 in Emmett, based on the projected 2030 traffic volumes, and to preserve SH-16 access and function as a principle arterial.

## Project Need

Improvements to SH-16 for highway safety and capacity are needed to:

- ♦ Bring SH 16 up to current standards
- ♦ Alleviate congestion by providing adequate capacity and level of service for 2030 traffic volumes.
- ♦ Evaluate existing and future accesses according to the current ITD Access Policy.
- ♦ Consolidate existing Accesses

## NEPA Environmental Process

A screening analysis was conducted on five action alternatives. The Idaho 16 Environmental Assessment (EA) carries forward one action and the no action alternatives. A preferred alternative is identified in the EA. A final alternative decision will be made after the completion of the National Environmental Policy Act Process.

## Preferred Alternative

The preferred alternative will generally follow the existing alignment except in the vicinity of MP 0.5, where the alignment will be shifted to the west to avoid sites on or eligible for the National Register of Historic Places (NRHP). A system of frontage and backage roads was developed to address existing and future access control for the project area (Figures 3 and 8). The environmental impacts when compared between all alternatives show very minor differences in environmental resource impacts (figures 5-6). However Alternative 1C has slightly less impacts to land use, business, and cultural and historic resources in the corridor. No listed or proposed T&E species or potential habitat is directly impacted in the preferred alternative.

## No-Build Alternative

Under the No-Build Alternative, Idaho 16 would remain a two lane facility with roadway width and clear zones distances that do not meet AASHTO standards. The insufficient highway capacity and uncontrolled access would remain unchanged.

## Alternatives Developed / Screening Process

### *Alternatives*

The Idaho 16 Improvement study developed and studied five action alternatives. The five alternatives developed were; alternative 1A, alternative 1B, alternative 2A, alternative 2B, and the preferred alternative 1C.

The primary difference between alternatives occurs from Milepost 0 to Milepost 3 (Figure 7). Alternatives 1A, 1B, and 1C, the improved highway alignment, remain on the existing highway alignment while Alternatives 2A and 2B leave the existing alignment and a new alignment is formed to the west. Alternatives 2A and 2B utilize the existing highway and an existing road (Pollard Lane) as backage roads for access control. In alternatives 1A, 1B, and 1C access control roads are created with a frontage or a backage road system.

### *Screening Process / Results*

Alternative screening was initiated by preparing an environmental inventory of the project Action Area. A 2,400 foot screening corridor was established to allow alternatives to be shifted to avoid environmental resources and to minimize land use, farmland, and irrigation impacts. Inventory maps were produced using a Geographic Information System (GIS) to allow comparison of the alternatives. Environmental impacts were compared to each other and summarized in the screening matrix (figure 5-6). Through the environmental screening process, all alternatives appear to have minimal differences in impacts to; T&E species, wetlands, cultural resources, noise, hazardous waste, water quality, secondary and cumulative impacts, flood plain encroachment and land use impacts.

Alternatives and results of environmental screening were presented to the public and agencies and local jurisdictions. The four alternatives presented were; alternative 1 having two design options, and alternative 2 having two design options.

The public involvement process included four Public Open House Meetings (March 2002-September 2003), to understand the views of the citizens within the project area.

Initially, four action alternatives were presented to the public and evaluated for their ability to meet the project Purpose and Need and their relative environmental and social impacts. We receive feedback from the public involvement process, on the four action alternatives. There was opposition to Alternatives 2A and 2B, due to their impacts to agricultural and residential properties as well as local business. This prompted the project team to develop Alternative 1C. Alternative 1C uses existing county, and public roads as frontage or backage roads. Developing existing roads into frontage and backage roads allowed the design team to minimize new ground disturbance and provide access that satisfy the current ITD access policy. Frontage and backage roads in alternative 1C follow property lines where feasible to minimize residential and agricultural parcel splits.



No new environmental concerns were identified with this alternative, and alternative 1 option C was added to the environmental screening matrix.

Based on the screening analysis, these five action alternatives were evaluated, and through environmental screening, public participation, and coordination with local government agencies, Alternative 1C was selected for further evaluation in the NEPA Environmental Assessment. The no-build alternative is also considered in the EA, but it does not meet the Purpose and Need for the project.

The Environmental Assessment (EA) for the Idaho Improvement Study will evaluate the environmental impacts of Alternative 1C.

## ***Basis for Preferred Alternative Selection***

The public involvement process included four Public Open House Meetings, March, and; October, 2002; April, and September, 2003 as well four Task Force Meetings: June, 2002; February, May, and July, 2003. Individual property owners within the first three miles voiced concerns about individual property owner and local business impacts with Alternative 2 during the public meeting held on April 8, 2003 and property owner meeting on May 22, 2003. In addition, public comments related to short term safety improvements, and adjacent corridor improvements were recorded. Comments recorded in the fourth public meeting were generally in favor of Alternative 1, Option C and were focused on project implementation and time frame of construction for the previously stated related projects. A complete summary of the public involvement will be attached as an appendix the EA.

The Idaho Transportation Department, District Three Office, in Boise has identified Alternative 1 Design Option C as the Preferred Alternative. The following rational is provided for this Preferred Alternative.

When compared the other four Alternatives and Design Options, Alternative 1 design Option C provides:

- ♦ Agreement with Purpose and Need of the project
- ♦ Land Use/Farmlands/Displacements/Relocations:
  - Divides the fewest farm parcels (15 parcels)
  - Demolishes and/or relocates 12 single-family residences same as for Alternative 2A – all other alternatives had greater impacts
  - Demolishes and/or relocates four commercial/industrial buildings – more than any other alternative, which ranged from 2 to 3.
  - Does not affect golf courses or platted lots as all other alternatives do
  - Requires converting 59 acres of farmland to transportation uses – compared to 37 to 59 acres for other alternatives.
- ♦ Cultural Resources – crosses only 7 National Register of Historic Places (NRHP) irrigation canals/ditches less than any other alternative and has no direct impacts on other NRHP properties.
- ♦ Wetlands – least impact with 5.6 acres of impact on primarily non-jurisdictional wetlands associated with irrigation canals.

- ♦ Floodplains – greatest impact with 19.5 acres
- ♦ Water Quality – greatest impact on water quality based on highest impervious surface area at 213 acres.
- ♦ Endangered Species – No impacts similar to all the alternatives.
- ♦ Hazardous Materials – potential impacts at one property – similar to all the other alternatives.

In summary, the Preferred Alternative divides the fewest farm parcels, has the least impact on NRHP resources, and has the least impact on wetlands. It also avoids impacts to endangered species. Although it has greater impacts on other resources, including floodplains, water quality, commercial properties, and acres of converted farmland, the ITD District Three Office, in Boise, has concluded that this alternative best satisfies the purpose and need of the project, even though some environmental trade-offs will be required.

DRAFT ENVIRONMENTAL CONSIDERATIONS MATRIX (1)

SH 16 Corridor Study											
Environmental Considerations	Land Use Impacts community cohesion, environmental justice, consistency with land use planning, and displacements	Cultural Resources	Recreation, including 4(f)/6(f) lands	Noise	Floodplain Encroachment	Water Quality, Runoff Impacts	Wetlands (non-jurisdictional)	Wildlife and Fish Resource Habitat	Threatened & Endangered Species	Hazardous Materials	Secondary and Cumulative Impacts
<b>Alternative –1 Existing Alignment Option C Frontage/Backage Road combination</b>	16 relocations <ul style="list-style-type: none"><li>12 Developed Single Family Residential</li><li>4 Developed Commercial or Industrial</li></ul> 15 Agricultural fields and residential parcels divided Converts 59 acres of farm to transportation corridor Consistent with Ada and Gem county Comprehensive Plan	13 NRHP eligible properties <ul style="list-style-type: none"><li>7 Canal or Ditch Crossings</li><li>3 Structures</li><li>3 Linear Features</li></ul>	Freezeout Hill Overlook 17 acres of BLM land Gem County Fairgrounds Firebird Raceway	89 homes (All homes within 550’ of the mainline and 250’ form frontage or backage roads)	19.5 Acres	213 acres of impervious surface	5.6 acres	The habitat this alignment crosses is mostly agricultural lands and is low quality for fish or wildlife. The addition of frontage roads would impact more habitat	Bald Eagle – low quality wintering habitat Slick spot peppergrass - patches of suitable habitat No direct impacts to slickspot peppergrass	Potential Hazardous Materials issue at the junction of SH 16 and SH 52 in Emmett	Project will increase the potential for commercial and residential development
<b>Alternative 1- Existing Alignment Option A Frontage Roads</b>	19 relocations <ul style="list-style-type: none"><li>17 Developed Single Family Residential</li><li>2 Developed Commercial or Industrial</li><li>Golf Course and 45 plotted residences</li></ul> 28 Agricultural fields and residential parcels divided Converts 59 acres of farm to transportation corridor Consistent with Ada and Gem county Comprehensive Plan	14 NRHP eligible properties <ul style="list-style-type: none"><li>8 Canal or Ditch Crossings</li><li>3 Structures</li><li>3 Linear Features</li></ul>	Freezeout Hill Overlook 21 acres of BLM land Gem County Fairgrounds Firebird Raceway	89 homes (All homes within 550’ of the mainline and 250’ form frontage or backage roads)	15.4 Acres	192 acres of impervious surface	5.5 acres	The habitat this alignment crosses is mostly agricultural lands and is low quality for fish or wildlife. The addition of frontage roads would impact more habitat	Bald Eagle – low quality wintering habitat Slick spot peppergrass - patches of suitable habitat No direct impacts to slickspot peppergrass	Potential Hazardous Materials issue at the junction of SH 16 and SH 52 in Emmett	Project will increase the potential for commercial and residential development



<b>Alternative 1-Existing Alignment Option B Backage Roads</b>	14 relocations <ul style="list-style-type: none"> <li>12 Developed Single Family Residential</li> <li>2 Developed Commercial or Industrial</li> <li>Golf Course and 45 plotted residences</li> </ul> 38 Agricultural fields and residential parcels divided Converts 50 acres of farm to transportation corridor Consistent with Ada and Gem county Comprehensive Plan	14 NRHP eligible properties <ul style="list-style-type: none"> <li>8 Canal or Ditch Crossings</li> <li>3 Structures</li> <li>3 Linear Features</li> </ul>	Freezeout Hill Overlook 20 acres of BLM land Gem County Fairgrounds Firebird Raceway	89 homes (All homes within 550' of the mainline and 250' form frontage or backage roads)	14.8 Acres	185 acres of impervious surface	5.4 acres	The habitat this alignment crosses is mostly agricultural lands and is low quality for fish or wildlife. The addition of backage roads would impact more habitat	Bald Eagle – low quality wintering habitat Slick spot peppergrass - patches of suitable habitat No direct impacts to slickspot peppergrass	Potential Hazardous Materials issue at the junction of SH 16 and SH 52 in Emmett	Project will increase the potential for commercial and residential development
<b>Alternative 2 – New Alignment with Option A – Frontage roads</b>	15 relocations <ul style="list-style-type: none"> <li>11 Developed Single Family Residential</li> <li>3 Developed Commercial or Industrial</li> <li>1 Developed Agricultural</li> <li>Golf Course and 45 plotted residences</li> </ul> 18 Agricultural fields and residential parcels divided Converts 37 acres of farm to transportation corridor Consistent with Ada and Gem county Comprehensive Plan	15 NRHP eligible properties <ul style="list-style-type: none"> <li>9 Canal or Ditch Crossings</li> <li>3 Structures</li> <li>3 Linear Features</li> </ul>	Freezeout Hill Overlook 21 acres of BLM land Gem County Fairgrounds Firebird Raceway	110 Homes (All homes within 550' of the mainline and 250' form frontage or backage roads)	15.7 Acres	171 acres of impervious surface	5.3 acres	The habitat this alignment crosses is mostly agricultural lands and is low quality for fish or wildlife. The addition of frontage roads would impact more habitat	Bald Eagle – low quality wintering habitat Slick spot peppergrass - patches of suitable habitat No direct impacts to slickspot peppergrass	Potential Hazardous Materials issue at the junction of SH 16 and SH 52 in Emmett	Project will increase the potential for commercial and residential development
<b>Alternative 2 – New Alignment with Option B –Backage roads</b>	15 relocations <ul style="list-style-type: none"> <li>12 Developed Single Family Residential</li> <li>2 Developed Commercial or Industrial</li> <li>1 Developed Agricultural</li> <li>Golf Course and 45 plotted residences</li> </ul> 25 Agricultural fields and residential parcels divided Converts 37 acres of farm to transportation corridor Consistent with Ada and Gem county Comprehensive Plan	15 NRHP eligible properties <ul style="list-style-type: none"> <li>9 Canal or Ditch Crossings</li> <li>3 Structures</li> <li>3 Linear Features eligible properties</li> </ul>	Freezeout Hill Overlook 20 acres of BLM land Gem County Fairgrounds Firebird Raceway	110 homes (All homes within 550' of the mainline and 250' form frontage or backage roads)	15.7 Acres	165 acres of new impervious surface	5.3 acres	The habitat this alignment crosses is mostly agricultural lands and is low quality for fish or wildlife. The addition of backage roads would impact more habitat.	Bald Eagle – low quality wintering habitat Slick spot peppergrass - patches of suitable habitat No direct impacts to slickspot peppergrass	Potential Hazardous Materials issue at the junction of SH 16 and SH 52 in Emmett	Project will increase the potential for commercial and residential development

Footnotes: (1) This matrix covers all environmental elements for all alternatives and design options from the junction of SH-44 and SH 16 to the intersection of SH-16 and SH-52 in Emmett. North of milepost 3.0, field-checks for wetlands and T&E species occurred in a 2,400 foot corridor (800 feet to the West and 1,600 feet to the East of the existing roadway centerline). North of milepost 3.0 and outside a 500 foot corridor, wetland areas were estimated from National Wetland Inventory Maps.

## **APPENDIX B**

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### **CONCEPT REPORT EXCERPTS**

## INTRODUCTION

This is the Concept Report for the SH-16 Improvement Study, located in Ada County and Gem County, Idaho. The project is approximately 14 miles long and begins at the junction of SH-44 and SH-16 and continues along SH-16 to the junction of SH-52 and SH-16 in Emmett, Idaho. SH-16 from Milepost 10 to Milepost 12.2 is included under a separate project, the Freezeout Hill Passing Lanes project (STP-3330(102 Key No. 8082). The purpose of this project is to plan improvements on Idaho 16 from the projected 2030 traffic volumes and to preserve Idaho 16's function as a principal arterial. These improvements will include the creation and / or realignment of access and collector roads, upgrading the existing highway from two lanes to four lanes with turning lanes. The improvements will include evaluating existing and future accesses according to the current ITD Access Policy. The Idaho Transportation Department will acquire the right-of-way necessary to widen the mainline and to construct the frontage and/ or backage roads. Future developments will drive the need for many of these access roads and so it is anticipated that those developing the land around Idaho 16 will contribute to the cost of construction of the access roads.

Improvements to Idaho 16 are needed to improve highway safety and capacity by:

- Improving substandard roadway geometrics
- Alleviating congestion by providing adequate capacity and level of service for 2030 traffic volumes.
- Evaluating existing and future accesses according to the current ITD Access Policy

Within the concept report, the ITD form 783-A outlines the design standards for the project. Supporting data for ITD 783-A include typical section sheets that show an existing typical section, proposed roadway and structural typical sections, and typical sections for each leg of the major intersections within the project. Also provided is Attachment A - Capacity/Level-of-Service Analysis, Attachment B-Proposed Structures, and Attachment C - Safety Evaluation and ITD-2658 forms for the project.

Following the ITD 783-A is the ITD 783-B, Alternatives Solutions and Costs, which summarizes all alternatives that were considered, reasons why they were or were not recommended, and estimated right-of-way and construction costs. The area maps that follow ITD 783-B show the considered alternatives. Backup data for ITD 783-B includes ITD 606, Access Control Determination, ITD 1150, Project Cost Summary, and ITD 2839, Right of Way Cost Estimate.

### Local Contacts:

Local contacts include Ada and Gem Counties, the City of Emmett, the local Chamber of Commerce, the Gem County Fair Board, and property owners and businesses along SH-16.

Ada County Planning, Jeff Patlovich, has been involved in discussions concerning the corridor plan. Tricia Nilsson, Planning Manager for Ada County Planning, expressed support of the backage road concepts and wants to coordinate the County and Star Comprehensive Plans to support access control needs of SH-16 as well as SH-44.

Gem County Planning, Debra Lish, has been involved in discussions concerning the corridor plan. Dennis Pulley, Supervisor of the Gem County Road & Bridge Department, represented the County's interest in SH-

16. The County does not have any special events that affect the highway. They would like to maintain the intersection of SH-16 with the Old Freezeout Road. Also, they may want to implement some special guide signing in the future.

All communication with the Chamber of Commerce has been directed to the City of Emmett. Bruce Evans is the Superintendent of Public Works for the City of Emmett and has been contacted and has not expressed any special requests or concerns about the project.

The Gem County Fair Board expressed their concerns with SH-16. Kathy Black, Secretary of the Gem County Fair Board, represented the Board's interest in SH-16. She stated that the highway is the main route to the fairgrounds and most people use the Johns Ave. intersection to access the fairgrounds. The Board felt a signal or peak period traffic control at this intersection would reduce traffic congestion during the Fair. The Fair dates vary but usually fall in late July or early August. The Fair does not have any parades or any other activities that require road closures.

The Ada County Highway District expressed concerns about Pollard Lane changing into a backage road. Joe Rosenlund, Assistant Manager of the Traffic Department, felt that Pollard Lane was too far away from the existing SH-16 alignment to function as a backage road. However, Alternative 2 provides for a new alignment of SH-16 that would be within ¼ mile of Pollard Lane. In this alternative Pollard Lane would be acceptable as a backage road. Joe did not foresee any problems with the frontage/backage roads typical section. Overall, Joe Rosenlund and Terry Little, Manager of the Traffic Department, found both alternatives and design options acceptable.

Two ITD maintenance personnel have been contacted and have not expressed any special requests or concerns about the project.

Firebird Raceway General Manager Bill New was not interested in relocating Firebird Raceway's existing main entrance to Chaparral Road as provided in one of the alternatives considered. He said relocating the entrance would have a major impact on the Raceway's operation. However, the three existing access points to the Raceway could be combined into a single access point with slight modifications to the existing entrance. Firebird Raceway holds most events in the evening and/or on weekends. Their largest event is the Nightfire Nationals typically held in August.

The Women's Challenge Bike Race follows SH-16 and SH-52 for one leg of the race. The local governments support this race and organizations and construction will have to work around this event. Special traffic control may be necessary during construction and once the highway is completely built out to allow the bicycles and motor vehicles to travel along SH-16 during the race safely.

Public meetings are being held throughout the planning and design process to inform and to gather comments, questions, and concerns from the public. These comments will be addressed and incorporated in the planning and design process.

#### Prosecution of Work:

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SH-16 Improvement Study  
Project No. STP-CM-3330 (105)  
Key No. 8630

One lane of traffic in each direction (two lanes total) will be provided at all times during construction. Flagging operations at major intersections are anticipated during non-peak hours, which are from 9:00 a.m.

to 3:00 p.m. and 8:00 p.m. to 5:30 a.m. Nighttime work from 8:00 p.m. to 7:00 a.m. is recommended not to take place within 500' of residential areas along the corridor

Coordination with the Emmett Chamber of Commerce, the City of Emmett, the Gem County Fair, and other special events will be included in all traffic control strategies. Also, coordination with Firebird Raceway will be included in all traffic control strategies for their special events.

#### Bicycles and Pedestrians:

Facilities for bicycles will be included from the junction with SH-44 to Substation Road. The proposed 10-foot shoulders on the mainline will accommodate bicycles and pedestrians. Low volumes of pedestrians are anticipated in this area. Intersections with right turn bays will also provide 6-foot bike lanes between the thru lanes and the right turn lane to accommodate bicycles.

Six-foot wide sidewalks will be provided between Substation Rd. and SH-52 along both sides of SH-16. Sidewalks will also be provided on Substation, Johns, and SH-52 within the project limits to accommodate pedestrian traffic. Pedestrian crosswalks will be provided at signalized intersections for existing and future pedestrian needs. Eight-foot shoulders are provided to accommodate bicycles in this area. A maintenance agreement for the sidewalks with the City of Emmett or Gem County is necessary.

As a minimum signal conduit for Beacon Light Rd, Substation Rd., and Johns Ave. should be included in the construction bid package.

#### Drainage:

Urban drainage between Substation and SH-52 will be collected with the appropriate inlet spacing and storm sewer pipe. It is anticipated that the storm water will be stored in a detention pond in close proximity to SH-16. The remaining project runoff along the corridor will be collected in drainage swales along the corridor. It is anticipated that minimal use of storm sewer pipe will be necessary for drainage transfer in the rural areas of the corridor.

#### Construction Staging and Phasing:

Recommended construction staging and phasing will occur once a design option and alternative is selected.

ITD-783 2/99 W  
27-032650-7

# IDAHO TRANSPORTATION DEPARTMENT CONCEPT APPROVAL



PROJECT NO.	STP-CM-3330 (105)				PROJECT ID	#8630
ROUTE	SH-16	MP	0.000	ME	13.927	
PROJECT NAME	SH-16 Improvement Study					P023170

PROJECT CATEGORY: ST SIMPLE ☐ ST COMPLEX ☐ FA SIMPLE ☐ FA COMPLEX ☒

Revisions or additions to these established project concept and design standards shall require appropriate supporting data and Idaho Transportation Department approval.

Recommended By:

NA

LOCAL SPONSOR

Date

Recommended/Approved By:

*[Signature]*

DISTRICT ENGINEER

8-8-04

Date

Reviewed By:

*[Signature]*

ROADWAY DESIGN ENGINEER

9-24-03

Date

Approved By:

*[Signature]*

ASSISTANT CHIEF ENGINEER (DEVELOPMENT)

09/25/03

Date

☐ Design Exception Approved by Committee

☐ No Design Exceptions Required

Date

ITD-783-A 7/01 (C) W  
27-032651-5

## DESIGN STANDARDS-Complex



1. PROJECT IDENTIFICATION															
Project No.		STP-CM-3330 (105)		Key No.		8630		Date		January 22, 2003					
Project Title		SH-16 Improvement Study		County		ADA		Terrain Type		Rolling					
Highway No.		SH-16		MP		0.000		MP		13.927					
Functional Class		Principal Arterial													
2. PROJECT TYPE															
Project Standards		<input type="checkbox"/> AASHTO		<input type="checkbox"/> 3-R		<input checked="" type="checkbox"/> STATE		ITD English Standards							
Oversight		<input type="checkbox"/> Full		<input checked="" type="checkbox"/> Exempt		<input type="checkbox"/> Non-Federal Aid									
3. General Project Description				8. Design Year		2030									
SH-16 from the junction of SH-44 (MP 0.000) to the south and SH-52. South Washington Avenue (MP 13.927) to the north. This project does not include SH-16 from MP 10.0 to MP 12.2. The project consists of planning to provide additional through lanes for increased traffic capacity, planning for frontage roads for future development access control along SH-16, construction staging, and preserving the necessary right-of-way for these purposes.				9. Traffic ADT		Present		9841		Future		19,861			
				10. Traffic D IV		Present		984		Future		1,986			
				11. Posted Speed		65,55		12. Design Speed		70,60					
				13. Minimum Level of Service (Attach capacity analysis)											
4. Standards for Pavement Width				MP		to		MP		Level of Service					
AASHTO Standard Width				0.00		to		2.00		C		B			
3-R Standard Width				2.00		to		13.927		D		B			
State Standard Width				33.5', 14' left turn lanes		to									
*ITD Standard Width															
*Corridor Plan (A-14-02)															
5. Roadway Widths (Attach existing and proposed typical sections)				4. Access Control		MP		to		MP		Existing		Proposed	
				0.00		to		13.927						Type IV	
MP		MP		Existing Pavement Width		Proposed Pavement Width		15. Max. Grade		Existing 5%		Proposed 4%, 5%			
0.00		10.0		Approx. 30'		72'		16. Max. Curve		Existing R=1150 ft		Proposed R=2050ft			
12.2		13.927		Approx. 42'		78'		17. Proposed Structures (Attach typical sections)		Deck Width (C-C)		35'-4", 75'-4", 81'-4", 93'-4" (0-0) 38', 78', 84', 96'			
Frontage/Backage		NA		32'				Vertical Clearance (Roadway/Q <sub>60</sub> )							
								Existing Bridge Sufficiency Rating				N/A			
								Design Load		HL-93		Rail Type		Concrete Parapet	
<input type="checkbox"/> Proposed width includes .6 m shoe each side (AASHTO STANDARDS ONLY)															
6. Proposed Maximum Superelevation				6.0%		18. Clear Zone		Cut		28'-30'		Fill		30'-34'	
7. Proposed Design Vehicle				WB-62				(70 mph) Cut: 26-28, Fill: 30-32 (60mph)							
19. PROPOSED WORK (Mark appropriate items)															
<input checked="" type="checkbox"/> Excavation		<input checked="" type="checkbox"/> Bicycle Lanes		<input checked="" type="checkbox"/> Curb and Gutter		<input checked="" type="checkbox"/> Lighting		<input type="checkbox"/> ITS							
<input checked="" type="checkbox"/> Drainage		<input type="checkbox"/> Separated Pathway		<input checked="" type="checkbox"/> Utilities		<input checked="" type="checkbox"/> Sidewalk									
<input checked="" type="checkbox"/> Base		<input checked="" type="checkbox"/> Traffic Signal		<input checked="" type="checkbox"/> Bridge(s)		<input type="checkbox"/> Seal Coat									
<input checked="" type="checkbox"/> Surfacing		<input checked="" type="checkbox"/> Erosion Control		<input checked="" type="checkbox"/> Guard Rail		<input type="checkbox"/> Detour		<input type="checkbox"/> Other							

APPENDIX B  
CONCEPT REPORT

ITD-783-A 7/01 (C) W  
(Reverse Side)

20. Traffic Signals			
a. Existing Location	Type of Controller	b. Proposed Location	Type of Warrant
SH-44 Intersection	Fully Actuated	Beacon Light Rd Intersection	Based on projections, Warrant 11- Peak Hour Volume in the year 2004
SH-52 Intersection	Fully Actuated	S. Johns Ave. Intersection- to be installed by developer	Based on projections, Warrant 11- Peak Hour Volume in the year 2005
		Substation Rd. Intersection- to be installed under separate contract in 2004	Based on projections, Warrant 11- Peak Hour Volume in the year 2004
21. Railroad Crossing Protection			
a. Existing Location (MP)	Type of Protection	b. Proposed Location (MP)	Type of Protection
N/A			
22. Accident History			
a. Accident Rate:			
Accident Base Rate (ACC/MV)		0.67, 1.22, 0.67, 1.22, 0.67, 1.22, 1.19, 0.70, 1.19, 0.70	
Existing Accident Rate within Project Limits (ACC/MV)		0.31, 0.98, 0.49, 0.26, 0.25, 0.98, 0.49, 1.53, 0.70, 0.23	
Spot Locations within Project Limits that exceed the Base Rate		M.P. 12.50	M.P.
M.P.	M.P.	M.P.	M.P.
23. Proposed Improvements to Reduce Accidents			
MP	Type of Improvements	Estimated Accident Reduction	
12.50	Signalization, Widen I/S	Reduction of 0.66 ACC/MV (M)	
*Attach worksheet for accident reduction, if necessary.			
24. Environmental			
Preliminary Environmental Evaluation (ITD-654) Complete:		<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
If No, Explain:			
Environmental Concerns:			
Hazardous Materials Historic Properties Slick Spot Pepper Grass Aase's Onion wetlands			
Attach Preliminary Environmental Evaluation if Applicable.			



## **APPENDIX C**

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### **SUMMARY OF NO EFFECT STATEMENTS**

# SUMMARY OF NO EFFECT STATEMENTS

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The following species have been identified by the U.S. Fish and Wildlife Service (USFWS), in their most current listing (#1-4-04-SP-0263), as either listed proposed or candidate species within Canyon and Ada counties Idaho. The Idaho Transportation Department, District 3, proposes that there will be No Effect to the species listed below for the reason(s) stated. Slickspot peppergrass (*Lepidium papilliferum*) is on the above stated list; however, the species is no longer protected under Section 7 of the Endangered Species Act.

## ***Yellow-billed Cuckoo (Coccyzus americanus)***

The cuckoo is dependent upon riparian forests with cottonwood trees for foraging, and dense understory foliage, preferably willow, for nesting. Sites with more than 65% canopy cover are preferred. No potential habitat exists in the vicinity of the project area.

## ***Southern Idaho Ground Squirrel (Spermophilus brunneus ebdemicus)***

The Idaho 16 Improvement Study will have no effect on the southern Idaho ground squirrel because this species does not occur within the project area. This species occurs only north of the Payette River. Since the river forms the southern boundary of their range, they are not expected to occur within the project area.

## ***Bull trout (Salvelinus confluentus)***

The Idaho 16 Improvement Study will have no effect on bull trout because this species does not occur within the project area. The project area contains no suitable habitat due to the low elevation and lack of waterways.

## ***Gray wolf (Canis lupus)***

Since the translocation of wolves from Canada, the population in Idaho south of Interstate Highway 90 is considered “*experimental, non-essential*” under Section 10 (j) of the Endangered Species Act. Under these circumstances, Federal action agencies are required to confer with the USFWS if their actions are likely to jeopardize the continued existence of gray wolves (50 CFR 17.83). The USFWS does not anticipate any actions that would result in a “likely to jeopardize the continued existence” determination for the reintroduced, experimental population of wolves.



United States Department of the Interior  
FISH AND WILDLIFE SERVICE

Snake River Fish and Wildlife Office  
87 S Vinnell Way, Suite 368  
Boise, Idaho 83709

RECEIVED

JUN - 4 2004

DIST. NO. 3  
DIVISION OF HIGHWAYS



Pamela Lowe  
District Engineer  
Idaho Transportation Department - District 3  
(Attention: Greg Vitely)  
P.O. Box 8028  
Boise, Idaho 83707-2028

JUN 01 2004

Subject: 90-Day Species List Update  
File #912.0400 SP #1-4-04-SP-415

Dear *Pam* Ms. Lowe:

The Fish and Wildlife Service is writing to update species list 1-4-04-SP-263 of March 5, 2004, for the Idaho Transportation Department - District 3. There are changes to the previous list. We have provided an updated Owyhee County list. Please replace your previous copy with the updated version. This letter officially updates species list number 1-4-04-SP-263 and provides you with a new number 1-4-04-SP-415. You should refer to the new number in subsequent correspondence and documentation.

Information concerning Federal agency obligations under the Endangered Species Act has been provided to you in the past. If you would like us to send you any of this information again or if you have questions, please contact Mark Robertson of my staff at (208) 378-5287. If you have questions regarding species under the National Marine Fisheries Service (NOAA Fisheries) jurisdiction, please call Nikki Leonard at (208) 378-5708.

Thank you for your continued interest in endangered species conservation.

Sincerely,

*for* *Jeffery L. Foss*  
Jeffery L. Foss, Supervisor  
Snake River Fish and Wildlife Office

cc: ITD-HQ, Boise (Clark)  
FHWA, Boise (Jorgenson, Inghram)  
NOAA Fisheries, Boise (Leonard)  
IDFG, Nampa (Leitzinger)  
IDFG, Jerome (McDonald)  
LHTAC, Boise (Fitz)



IDAHO TRANSPORTATION DEPARTMENT -- DISTRICT 3  
90 DAY SPECIES LIST UPDATE  
ADA COUNTY, IDAHO  
SPECIES LIST #1-4-04-SP-263

LISTED SPECIES	COMMENTS
Gray wolf ( <i>Canis lupus</i> )	XN - Experimental/Non-essential population
Bald eagle ( <i>Haliaeetus leucocephalus</i> )	LT - Wintering area
Bull trout ( <i>Salvelinus confluentus</i> )	LT
Idaho springsnail ( <i>Pyrgulopsis idahoensis</i> )	LE -- Mainstem Snake River only

PROPOSED SPECIES/CRITICAL HABITAT

Bull trout ( <i>Salvelinus confluentus</i> )	Proposed critical habitat
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CANDIDATE SPECIES<sup>1</sup>

Yellow-billed cuckoo ( <i>Coccyzus americanus</i> )	C
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<sup>1</sup> Candidate species have no protection under the Act, but are included for your early planning consideration. Candidate species could be proposed or listed during the project planning period, and would then be covered under Section 7 of the Act. The Service advises an evaluation of potential effects on candidate species that may occur in the project area.

March 2004





IDAHO TRANSPORTATION DEPARTMENT – DISTRICT 3  
90 DAY SPECIES LIST UPDATE  
GEM COUNTY, IDAHO  
SPECIES LIST #1-4-04-SP-263

LISTED SPECIES	COMMENTS
Gray wolf ( <i>Canis lupus</i> )	XN - Experimental/Non-essential population
Bald eagle ( <i>Haliaeetus leucocephalus</i> )	LT - Wintering/Nesting area
Bull trout ( <i>Salvelinus confluentus</i> )	LT

PROPOSED SPECIES/CRITICAL HABITAT

Bull trout ( <i>Salvelinus confluentus</i> )	Proposed critical habitat
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CANDIDATE SPECIES<sup>1</sup>

Yellow-billed cuckoo ( <i>Coccyzus americanus</i> )	C
Southern Idaho ground squirrel ( <i>Spermophilus brunneus endemicus</i> )	C

<sup>1</sup> Candidate species have no protection under the Act, but are included for your early planning consideration. Candidate species could be proposed or listed during the project planning period, and would then be covered under Section 7 of the Act. The Service advises an evaluation of potential effects on candidate species that may occur in the project area.

March 2004

## INTRA-OFFICE MEMO



Project Name: SH 16 Corridor Study Page 1 of 1

Project No: \_\_\_\_\_ By: Maria Shepherd Date: 3/04/02

☒ Telephone Message To/From: Dr. Eric Yensen Phone No: (208) 459-5335

☐ Memo to File Of: Albertson College of Idaho

☐ Meeting Notes Attendees: \_\_\_\_\_

☐ Other: \_\_\_\_\_

**Subject:** Southern Idaho ground squirrels in project area.

**Record of what was discussed:**

I asked Dr. Yensen if there were any southern Idaho ground squirrels in the project area since they are on the species list for Gem County. He told me that they are found only north of the Payette River, the river is the southern boundary. There are only Piute ground squirrels in the project area.

## **APPENDIX D**

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### **PUBLIC INVOLVEMENT**

# PUBLIC INVOLVEMENT SUMMARY FOR ITD IDAHO 16 IMPROVEMENT STUDY

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## Overview

Idaho 16, between Emmett and the junction of Idaho 44, is an important corridor that connects Gem and Ada counties. The once rural area is changing from farms and orchards to subdivisions and businesses. Increased traffic is creating safety and congestions concerns.

The Idaho Transportation Department hired a consultant team to help address these concerns. Washington Group International, Entranco and Lynda Friesz Public Relations are working with the department to conduct the Idaho 16 Improvement Study. The study examines long-term highway needs and will provide ITD with the environmental clearance needed to proceed with projects. The study will create a 20-year transportation plan. The step-by-step planning process includes:

- ♦ Collaboration with local governments
- ♦ Transportation planning linked with local land-use planning
- ♦ Extensive public participation opportunities

The following is a summary of the public involvement for the Idaho 16 Improvement Study. The public involvement included open house style public meetings, citizens' task force meetings, and meetings with property owners.

**First public meeting:**      March 21, 2002 (4:30-8:30 p.m.)  
Emmett High School  
721 W. 12th St.  
Emmett, Idaho

- ♦ A total of 205 people attended the public meeting.
- ♦ Of those 205 participants, 102 were male.
- ♦ Of those 205 participants, 103 were female.
- ♦ 199 participants were representing themselves as business, property/homeowners, interested citizens or citizen groups.
- ♦ One participant was a representative from Canyon County Planning and Zoning.
- ♦ One participant was a representative from the Gem County Chamber of Commerce.
- ♦ One participant was a representative from the Gem County Commissioner's Office.
- ♦ Two participants were from state and federal agencies.



- ♦ One participant was from the media.

## Meeting Notification Schedule

March 4, 2002	Mailed letter through mail service (Autosort) to entire Emmett area announcing meeting date
March 13, 2002	Newspaper ad appears in Emmett Messenger Index and Payette Enterprise
March 17, 2002	Newspaper ad appears in the Idaho Statesman
March 20, 2002	Newspaper ad appears in the Emmett Messenger
March 21, 2002	Public Meeting held
April 21, 2002	Comment period ends

## Meeting Overview

Project officials presented information concerning five projects currently scheduled to improve Idaho 16: Guardrail safety improvement, Substation Road traffic signal, Firebird South passing lanes, Freezeout Hill South passing lanes and Freezeout Hill passing lanes. Project officials presented information about the improvement study and the planning process to address safety and congestion concerns on Idaho 16. Representatives from the Division of Highway Safety, Idaho State Police, COMPASS, ACDS and GCDS attended the open house to answer questions from the public.

## Summary of Written Comments

Comments were collected from March 21, 2002 through April 21, 2002 regarding the transportation projects along Idaho 16 including: Idaho 16 Improvement Study, Substation Road Traffic Signal, Firebird Raceway South Passing Lanes, Freezeout Hill Passing Lanes and Freezeout Hill South Passing Lanes. Meeting participants, home/business owners, citizen groups, elected officials and interested citizens provided the Idaho Transportation Department with 112 written comments. Numerous issues and concerns regarding the Idaho 16 projects were expressed in each comment form.

## Non-project Specific Comments

- ♦ Need to make public information easier to access
- ♦ Do something soon, improve road now
- ♦ Need more police patrols including Idaho State Police, Gem And Ada County police issuing tickets, especially between 6 and 8 a.m. and 4:30 – 6:30 p.m.

## Idaho 16 Improvement Study

- ♦ Make Idaho 16 four or five lanes today
- ♦ Don't change the speed limit or make passing lanes, turn it into five lanes
- ♦ Just adding passing lanes will cause problems, passing lanes are not enough and only a few cars get to pass the slow vehicle, we need five lanes
- ♦ Reduce speed limit to 55 permanently or until additional lanes are created
- ♦ Protect limited access on SH 44 between the end of the bypass and 16
- ♦ Consider closing Cherry Lane intersection
- ♦ Need a shoulder wide enough to pull off in case of car trouble and for bicyclists
- ♦ Add a special lane for car pooling
- ♦ Need a "No Passing Zone" for a larger section of the highway

## Substation Road Traffic Signal

- ♦ Do not put in a light at Substation Road
- ♦ Before Substation light is done need to evaluate the effect of the Johns Ave./SH 52 light
- ♦ Freezeout Hill improvements should be made before a light at Substation Rd.
- ♦ Extend the turn lane onto Substation north
- ♦ Need warning lights coming down Freezeout Hill about the Substation light

## Firebird Raceway Passing Lanes

- ♦ Change the solid white line at Firebird to dotted so slower vehicles can pull over
- ♦ Need a passing lane at Firebird Hill rather than just an acceleration lane
- ♦ Firebird entrance and turn lanes are creating hazards

## Freezeout Hill Passing Lanes

- ♦ Freezeout Hill improvements should be made before the Substation light
- ♦ Do not need Freezeout widened, use the funds for a passing lane at milepost 8
- ♦ Four lanes up Freezeout Hill will encourage more traffic and tear up the hills

**First Task Force meeting:** June 20, 2002 (7– 9 p.m.)  
Emmett High School  
721 W. 12th St.  
Emmett, Idaho

- ♦ A total of 10 people attended the meeting
- ♦ Of those 10 participants, four were male
- ♦ Of those 10 participants, six were female
- ♦ Four participants represented “Citizens for a Safer Highway 16”
- ♦ Two participants represented the “Emmett Jaycees”
- ♦ Two participants represented themselves as residents of Emmett
- ♦ One participant was from the media

## *Meeting Overview*

The task force is a group of citizens who volunteered to participate in meetings throughout the Idaho 16 Improvement Study’s environmental process. The Task Force meets regularly to discuss project related issues. The citizen’s comments and points of view are recorded and used by the transportation department to help guide project decisions.

The Idaho 16 Improvement Study Task Force meetings serve several purposes. First, they help the transportation department understand project issues. Second, the meetings allow participants to make recommendations on the alternatives to be evaluated in the environmental document. Third, the meetings inform the public about regulations and policies that affect the project. Finally, the meetings help keep interested citizens updated on the project’s progress.

The first Task Force meeting was held June 20, 2002 at Emmett High School. The Task Force members participated in a group exercise to help identify and prioritize some of the key issues associated with the highway corridor. The Task Force members were split into two groups and asked to identify their issues or concerns with the project. After the issues were identified, each group ranked them to identify the issues they felt were a higher priority. The issues generated at the meeting and their rankings are listed below. Some of the issues tied in the rankings.

### **Group 1**

1. No signal at Substation Rd., possible caution light.
2. Need passing lane all the way up Freezeout Hill.
3. Would like passing lanes at Firebird Raceway.
3. Need wider shoulder width for broken down cars.
4. Minimize access points along the corridor, frontage roads are important.

4. Need to have Ada County involvement.
5. Need public driving education for all drivers both young and old.
5. Need more law enforcement especially on top of Freezeout and at Firebird Raceway.
5. Accelerate the process whenever possible.
5. No Cherry Lane entrance on to Idaho 16.
6. Address traffic entering Idaho 16 from W. Deep Canyon Rd.
6. Widening of Freezeout Hill.
6. Address passing lanes that are planned (congestion, bottlenecking, not long enough).
6. Need double yellow at milepost 8.
7. Need double yellow extended north down Freezeout Hill.

## Group 2

1. Passing lanes are needed throughout the corridor, especially between milepost 7.5 and 8.5 because of low visibility.
2. No Substation light, evaluate another solution.
3. More law enforcement is needed.
3. Four lanes now.
3. Speed up process.
3. Vehicle pullout are needed
3. Provide acceleration lanes for safer access.
4. Evaluate speed limit study. Lowering the speed limit would not help, it would just cause more driver frustration.
4. Add lane on Freezeout Hill.
4. Coordinate with planning associations to make sure the long-range Idaho 16 corridor plans are consistent with other long-term plans.
4. Idaho 16 should maintain its function as a commuting thoroughfare. The number of access points and the number of stoplights should be limited.
5. Level shoulder dirt.

**Second public meeting:** October 9, 2002 (4:30-8:30 p.m.)  
Emmett High School



721 W. 12th St.  
Emmett, Idaho

- ♦ A total of 154 people attended the public meeting.
- ♦ Of those 154 participants, 79 were male.
- ♦ Of those 154 participants, 75 were female.
- ♦ 150 participants were representing themselves as business, property/homeowners, interested citizens or citizen groups.
- ♦ One participant was a representative from the Gem County Commissioner's Office.
- ♦ One participant was from the Ada County Sheriff Department
- ♦ One participant was from the Gem County Sheriff Department.
- ♦ One participant was from Representative Butch Otter's office.

## *Meeting Overview*

Project officials presented displays and information showing further analysis on alternatives for widening Freezeout Hill based on comments from previous meetings and a progress report on the Idaho 16 Improvement Study including results from preliminary environmental surveys. They also presented final details on the Substation Road traffic signal project.

## **Meeting Notification Schedule**

\* All mailings were sent to individuals on the stakeholder list as well as through a sip code mail drop in Emmett, Eagle and star that reached 8,596 addresses within the project area.

July 17, 2002	Project update brochure mailed to project stakeholders
Sept.12, 2002	Mailed letter announcing meeting to stakeholders
Sept. 22, 2002	Newspaper ad appears in Idaho Statesman
Sept. 25, 2002	Newspaper ad appears in Emmett Messenger Index
Sept. 27, 2002	Press release distributed to local media
Oct. 2, 2002	Newspaper ad appears in the Emmett Messenger Index
Oct. 6, 2002	Newspaper ad appears in Idaho Statesman
Oct. 9, 2002	Newspaper ad appears in Emmett Messenger Index
Oct. 9, 2002	Public meeting held
Oct. 23, 2002	Comment period ends

## Summary of Written Comments

Comments were collected from Sept. 16, 2002 through Nov. 20, 2002 regarding the transportation projects along Idaho 16 including: Idaho 16 Improvement Study, Substation Road Traffic Signal, Firebird Raceway South Passing Lanes, Freezeout Hill Passing Lanes and Freezeout Hill South Passing Lanes. Meeting participants, home/business-owners, citizen groups, elected officials and interested citizens provided ITD with 48 written comments. The following summarizes those comments.

### *Non-project Specific Comments*

- ♦ Would like to see a four-lane road from Boise to Council (going through Emmett)
- ♦ Would like to see more county and city representatives at the meetings
- ♦ Why is the speed limit on Idaho 16 65 mph when it's 55 mph on Idaho 52? Idaho 52 has less traffic, better vision areas and no hills
- ♦ Signs telling people to turn lights on are a waste of money

## Idaho 16 Improvement Study

- ♦ The speed limit needs to be reduced to 55 mph and strictly enforced. Passing should also be limited
- ♦ Convert Idaho 16 into a four-lane highway; expand from the intersection of Idaho 44 to I-84. Incorporate a dedicated center lane that is restricted to left hand turn lanes only. Allocate sufficient space for designated right-hand turn lanes that allow vehicles to maintain an appropriate speed until entering the right-hand turn lane and then slowing down.
- ♦ Would like to see a four-lane divided highway
- ♦ Improving Idaho 16 is a bad thing because it will bring more people and more traffic
- ♦ Frontage roads are a good approach for safe access on Idaho 16
- ♦ Backage roads sound like a good idea, eliminates need for weed fields at each intersection and reduces visual distraction on the highway
- ♦ Horse trails should be considered with underpasses around bridges etc. or horse accessible crosswalks to connect trails

## Substation Road Traffic Signal

- ♦ Would like to see a caution light installed. It would be hazardous for trucks coming down the hill and a slow climb up the hill from the caution light, however a major caution of some kind is necessary
- ♦ Blinking light is not a solution. Need five lanes and a signal system

- ♦ Do not put in a stoplight at Substation Road
- ♦ Add a right turn lane eastbound on Idaho 16 at Substation Rd. Eastbound vehicles currently use the left turn lane as a passing lane

## Cherry Lane/Sand Hollow Closure

- ♦ There are currently no problems at this intersection. As traffic increases in the future left turns should be denied but right turns allowed
- ♦ Concerned about closing Cherry/Sand Hollow Road. Look at a frontage road or some other kind of access
- ♦ An overpass at Cherry Lane with egress/exit lanes and an interchange at Substation Road/Idaho 16 will be safest approach

## Freezeout Hill Passing Lanes

- ♦ Loose sand from construction on Freezeout Hill causes substantial paint and glass damage to cars
- ♦ We need two lanes for each direction of traffic going up and down Freezeout Hill
- ♦ Lower the speed limit to 45 mpg before reaching the bottom of Freezeout Hill. Add a 45 mph sign in front of the flashing light behind Jane Paller's property. Frontage roads are a must for safety.

**Second Task Force meeting:** February 20, 2003 (7–9 p.m.)  
Emmett High School  
721 W. 12th St.  
Emmett, Idaho

- ♦ A total of 12 people attended the meeting
- ♦ Of those 12 participants, two were male
- ♦ Of those 10 participants, ten were female
- ♦ Four participants represented "Citizens for a Safer Highway 16"
- ♦ One participant was from the media

## Meeting Overview

The Task Force is a group of citizens that meet periodically to discuss project related issues with members of the project team. Members were citizens who had signed up to participate on the Task Force at the first public meeting. They were notified by telephone of the Task Force meeting time and location. The citizen's comments and points of view are recorded and used by the transportation department to help guide project decisions.

The second Task Force meeting was held February 20, 2003 at Emmett High School. The Task Force members participated in a group exercise to provide input on four proposed alternatives for the highway corridor including both frontage and backage roads. The Task Force members were split into three groups where they were shown the alternatives with both frontage and backage roads. The groups then discussed issues and concerns associated with the alternatives including environmental, traffic, design and growth issues. After the issues were discussed, each group summarized the elements of the alternatives they liked or disliked. A summary of each group's discussions is listed below.

## Group 1

The group discussed several environmental, traffic and growth issues associated with the alternatives. They asked the project team lots of questions about the impacts that had to be addressed as part of the environmental studies including property owners, historical structures, different terrain types, and threatened or endangered species. Some of the questions included:

- ♦ Can frontage and backage roads be used artillery roads to reduce congestion?
- ♦ Are backage roads more expensive?
- ♦ Do backage roads take longer to build than frontage roads?
- ♦ Are there more environmental issues associated with backage roads?
- ♦ How are future accesses and growth addressed by both frontage and backage roads?

The group concluded that they would like to see an alternative that straightens Idaho 16 near Highway 44. They would like to see backage roads wherever possible but they understand there may be sections where frontage roads will be necessary do to some of the environmental issues that were discussed.

## Group 2

After going through the various alternatives, it was very clear what the group wanted. Their first priority was the alternative that straightened the curve before Highway 44 (State Street). Their second priority was to go for an option that allowed the backage roads. They felt this would allow for future development, and still accommodate traffic needs in the area for subdivisions, future growth and businesses.

## Group 3

For the most part the response from this group was very positive. Their preferences, however, varied. One participant said that both frontage roads and backage roads were good and should be compared based on cost. Two members said that the choice depends on the area, but frontage roads would work for the most part. Another participant liked figure 4. There was also a suggestion to have additional access to Firebird – possibly a west access or a one-way in, one-way out.

**Third public meeting:**      April 8, 2003 (4-8 p.m.)  
Eagle Christian Church



7695 W. State Street  
Eagle, Idaho

- ♦ A total of 159 people attended the public meeting.
- ♦ Of those 159 participants, 95 were male.
- ♦ Of those 159 participants, 64 were female.
- ♦ 149 participants were representing themselves as business, property/homeowners, interested citizens or citizen groups.
- ♦ One participant was from the Idaho State Legislature
- ♦ Eight participants were from local, state and federal agencies
- ♦ One participant was from the media

## Meeting Notification Schedule

\* All mailings were sent to addresses with the project area that includes Emmett, Eagle and Star through a zip code mail drop that reached 8,596. In addition, a mailing list was developed from a stakeholder list that includes property owners, city, county and state officials, ITD personnel, media and residents that are interested in the project. That list included 379 addresses bringing the total mailing to 8,975.

March 26, 2003	Newspaper ad appears in the Emmett Messenger Index
March 28, 2003	Press release distributed to local media
April 1, 2003	Newspaper ad appears in Idaho Statesman
April 1, 2003	Project brochure mailed to stakeholders
April 2, 2003	Newspaper ad appears in Emmett Messenger Index
April 6, 2003	Newspaper ad appears in Idaho Statesman
April 7, 2003	Newspaper ad appears in Idaho Statesman
April 8, 2003	Public meeting held
May 2, 2003	Comment period ends

## Meeting Overview

Project officials presented information on four alternatives for the Idaho 16 corridor between Emmett and the junction of Idaho 44. The alternatives address the use of frontage and backage roads to provide access on and off the highway.

## Summary of Written Comments

Comments were collected from April 8, 2003 through May 2, 2003 regarding the Idaho 16 Improvement Study. Meeting participants, home/business-owners, citizen groups, elected officials

and interested citizens provided the Idaho Transportation Department with 53 written comments. The following are representative of the various issues and concerns.

### *Non-project Specific Comments*

- ♦ Rather than having funding delay the whole thing the environmental study seems ridiculous without a cost analysis to coincide. How can we compare four alternatives without knowing any analysis between the choices?
- ♦ What rational are you using to suggest a 50+ year-old building or some wet piece of ground has more importance than safely moving large numbers of people to and from work/recreation?
- ♦ The project puts us in limbo and ties us up from doing anything with our property as long as it is being considered
- ♦ Widen Idaho 44 to four lanes to accommodate change to Idaho 16
- ♦ We need a meeting where we can talk and give our input on this as it effects all the people in the area who have not had any information until this plan was put forth
- ♦ Better road facilities for the valley opens the ability for future commerce and resources to Gem and Ada County

### *Idaho 16 Improvement Study*

- ♦ Connect the frontage access road to Equest Lane to allow Gulch Ranch Estates and Greene Veterinary Clinic to access at Equest Lane. The clinic has lots of horse trailers and traffic that would be better to have a direct access to the frontage road and not redirect it through the subdivision on private lanes
- ♦ Consider Pollard and Palmer as frontage and backage roads
- ♦ Widen frontage road along Broadwood Ln. to the west.
- ♦ Would suggest moving Hwy in this area (across from Hillsdale) to the west 100 feet or so, which would allow room for frontage road right along highway because terrain is steep
- ♦ Expand existing road and do not do anything with access roads
- ♦ Widen the highway to five lanes and add sound barriers for residents
- ♦ Keep Idaho 16 traffic flowing at 65 mph without interruption, spread the frontage road accesses out to 10 or 15 miles, put in overpasses rather than ground-level crossings, keep the frontage roads straight for better traffic flow.
- ♦ Need much longer turning lanes at Chaparral Rd., Jackass Gulch Rd, Beacon Light and Floating Feather, both left and right lanes.

### *No Alternatives*

- ♦ All the proposed routes go through my house, my family's new golf course, winder and our new subdivision. It will cost the County Highway (ITD) too much money to purchase my land.
- ♦ Did not like either of the alternatives
- ♦ We are putting in an RV Park and would be denied access to my property and business with both plans
- ♦ The highway should stay the same and save millions of dollars, Emmett people will have to just leave sooner to get to work

### *Alternative 1 (A & B)*

- ♦ I definitely like Alternative 1-Option A. Why change Hwy 16 when current homeowners have either purchased or are holding real estate based upon current roads?
- ♦ Alternative 1 would go through our property our home is 90 ft from the highway.
- ♦ Alternative 2 would be better option for us.

### *Alternative 2 (A & B)*

- ♦ I prefer Alternative 2-Option A, which uses the existing Hwy 16 as the frontage road.
- ♦ I like Alternative 2 Option B plan with the Freezeout interchange idea
- ♦ Alternative 2 would destroy property values; even their homes would be gone.
- ♦ The best route is Alternative 2 Option A with the Cherry Lane Interchange.

### *Traffic/Speed Limit/Safety*

- ♦ I feel the real danger increased when the speed limit was increased to 65. The reasonable solution would be to use the existing right of way, widen the existing highway, provide a left turn lane and possibly put a light at Beacon Light.
- ♦ The road needs to be widened for the safety of the communities of the Gem Valley
- ♦ Sign should say "Headlights" on, not just lights.

### *Freezeout Hill Passing Lanes*

- ♦ The intersection at Idaho 16 and Cherry Lane does not allow access across the highway and cuts off our farmland; an overpass would allow our farm traffic to pass safely over the highway.
- ♦ Put an overpass across Idaho 16 at Sandhollow Rd. rather than a median barrier or ground-level crossing, include turn lanes that allow traffic to get up to speed (65 mph) and merge with traffic on Idaho 16.

- ♦ Add a rest stop on the flat area below the current scenic overlook with kiosks.
- ♦ We would like to see adequate signage and turn-offs to access the Freezeout Hill Scenic Overlook and Memorial.

### *Substation Light*

- ♦ The light will cause an increase in noise due to trucks accelerating up the hill and using "jake brakes" down the hill, consider putting in "no Engine Brake" signs.
- ♦ We desire to see the traffic light at Substation Rd. fully operational.

**Third Task Force meeting:** May 6, 2003 (6-8 p.m.)  
Eagle Christian Church  
7695 W. State St.  
Eagle, Idaho

- ♦ A total of 82 people attended the meeting

## **Task Force Meeting Schedule**

April 17, 2003	Mailed letter to 273 property owners and interested citizens inviting them to the Task Force Meeting
May 6, 2003	Third Task Force Meeting Held
June 6, 2003	Comment period ends

## **Meeting Overview**

At the Idaho 16 Improvement Study Public Meeting held April 8, the project team learned it had not received input from some of the public, mostly near the southern end of the project area. The third Task Force meeting was held near the southern end of the project area to encourage attendance from the public in that area and provide ITD with input and comments on the project. The Task Force members participated in group exercises to help identify issues and develop options for the project. The Task Force members were split into seven groups where they were asked to identify issues or concerns with the project. After the issues were identified they were grouped into "like" categories. The categories were ranked to identify the issues that each group felt were higher priorities. The groups were then shown aerial maps of the project area and asked to help identify some options or alternatives that should be investigated further. The facilitator from each group was asked to provide an analysis of the group's issues and comments.

## **Facilitator Analysis**

### *Group 1*

Group 1 included 13 people. The following concerns were raised:

- ♦ Widen road to four lanes and forget access roads
- ♦ Use Star Road as connector to Emmett



- ♦ No re-alignment
- ♦ Reduce speed
- ♦ Straighten curves where Pollard comes off 26
- ♦ What measurements for widening are required for frontage roads and Idaho 16?
- ♦ I want to improve my property and need to know how much right-of-way you are going to take
- ♦ Residents need to know complete, exact changes to be made to Idaho 16 and exactly when they will be made
- ♦ Horse trails under bridge or along the highway
- ♦ Sound walls
- ♦ Bike lanes
- ♦ Use money saved by using sensible plan to extend Idaho 16 south to the freeway
- ♦ What controls for "contractor/developers" on frontage/backage roads

Comments from maps:

- ♦ Area around Big Gulch is circled) "We would prefer Idaho 16 to be widened on the west side of existing roadbed in the Big Gulch drainage and have an access at Equestrian Lane which would have the least impact on Veterinary Drive."
- ♦ "Widen existing road, use existing road bed and use turn lanes. Change laws if necessary."
- ♦ (Marked map from State Street to the Ada/Gem County line) "I do not care if the roadbed remains or is straightened. It should be four lanes (two opposing) with a fifth turn lane center. NO frontage/backage roads."
- ♦ (Map marked north of Firebird/east of Idaho 16) "Horse trail."
- ♦ (Map marked near Floating Feather) "Widen existing road – use existing road bed and use turn lanes."
- ♦ (Map marked from Idaho 44 to Beacon Light) "Widen the existing road with turn lane."
- ♦ (Map marked from Idaho 44 to Beacon Light) "Widen existing road, no access roads, turn lanes only."

*Group 2*

Group 2 included 9 people. The following concerns were raised:

- ♦ Scary because of traffic
- ♦ Lower speed

- ♦ Put it somewhere else
- ♦ Scrap the current alternatives and start over
- ♦ Create an alternative that widens the current Idaho 16 and uses Palmer on the east and Pollard on the west as frontage road
- ♦ Widening and doing frontage roads consumes my property on two sides-would like to just see widening or moved
- ♦ Idea seems radical-not in Kansas anymore
- ♦ Do it right the first time
- ♦ Growth will overpower (out pace project
- ♦ Plan ahead-use overpasses and flyovers

Comments from maps: This group did not rank their suggestions on the map. The facilitator marked the specific suggestions regarding using Star Road and using Palmer and Pollard as frontage roads. The group also stated that they were concerned that the property owners were not included earlier in the project. There were also several questions regarding the answers to the Star Citizen Action Committee letter, specifically regarding the timing of the Idaho 44 study and the Idaho 16 interstate connection.

### *Group 3*

Group 3 included 14 people. The following concerns were raised:

- ♦ Extend Idaho 16 across the river to the freeway
- ♦ Widen Idaho 44 to the freeway first
- ♦ Why not Star Road or Linder Road?
- ♦ What happens to land value?
- ♦ Access to my property?
- ♦ Lower the speed limit to 55 mph
- ♦ Passing lanes
- ♦ Get rid of reverse curve
- ♦ Why improve Idaho 16 to four lanes when it ties into a two-lane road?
- ♦ Improve/install passing lanes on Highway 16 where needed, put major focus on access I-84 down Idaho 44 or Eagle Road
- ♦ How much space must separate main road and frontage road?
- ♦ Develop Dry Creek Road to Eagle Road

- ♦ Is money available for this project?

Comments from maps: Two participants drew on the maps.

- ♦ Participant's map shows a route connecting Linder Rd. to Idaho 16 near the Ada/Gen County lines
- ♦ Participant's map shows first curve near the southern end of Idaho 16 outlined. "Widen and put in a passing lane and lights, do not relocate."

### *Group 4*

Group 4 included 13 people. The following concerns were raised:

- ♦ Loss of property
- ♦ Why would you want to ruin a golf course, the only really nice thing in Star?
- ♦ Public access across property to BLM
- ♦ Road on lower side of Freezeout Road needs new access
- ♦ Stoplight (Substation) would mean loss of driveway and shrubs
- ♦ School bus left turns are unsafe, even worse for cars illegally passing
- ♦ Slow farm equipment crossing highway
- ♦ Do not see a huge benefit for Emmett traffic solutions with alternative plans
- ♦ Who bears the cost of each backage road, and do I have to pay for it?
- ♦ Plan is too broken up and will cause large problems with mail delivery

### *Group 5*

Group 5 included 8 people. The following concerns were raised:

- ♦ Reducing the speed
- ♦ Not reducing the speed
- ♦ Enforcement of speeding and passing
- ♦ Access
- ♦ Straightening out the curves
- ♦ Add no passing double yellow lines at intersections
- ♦ Add a traffic light at Beacon Light

- ♦ Left turn lanes at Floating Feather
- ♦ Why move the road?
- ♦ Loss of family farms
- ♦ Idaho 44
- ♦ Idaho 16 to I-84
- ♦ No light at Substation-too hard for truckers
- ♦ No need for frontage roads-I-84 doesn't have them
- ♦ Suggest separate meetings for Emmett residents and those who live along the road

### *Group 6*

Group 6 included 14 people. The following concerns were raised:

- ♦ What becomes of the property that lies between the main road and the backage road?
- ♦ My property values would be trashed with these four plans
- ♦ Unsafe shoulders
- ♦ Speed limit too high
- ♦ Need passing lanes stop signs and turn lanes on Beacon Light & Floating Feather
- ♦ Too much traffic for the road to handle
- ♦ Is 660 feet from Idaho 16 a real number? Will there be noise barriers of any type?
- ♦ Does Firebird get impacted -if not, why not?
- ♦ Working actively w/local P & Z on correct zoning
- ♦ Quality of life. Noise from 7 a.m. – 12 A.m. during races (at Firebird) and safety

Comments from maps: Three maps were turned in. When group was polled they all agreed that the drawing were representative of what they would all like to see happen on Idaho 16.

- ♦ Widen existing Idaho 16 & use Palmer, Plummer & Pollard as backage/frontage roads
- ♦ Widen existing Idaho 16 & use Palmer, Plummer & pollard as frontage/backage roads & increase State St. to four lanes where Idaho 16 meets
- ♦ Widen the old Highway 16 to four lanes with turns-ins at Beacon Light & Floating Feather. Make access for all farm equipment. Widen back roads! Four-lane highway 68 feet wide.



### *Group 7*

Group 7 included 11 people. The following concerns were raised:

- ♦ Speed Limit/Enforcement

This category answered to sentiments that the “existing highway remain with improvements as necessary,” such as “moving in the direction of a four-lane highway,” and toward “increasing safety” by “lowering speed limits” that are “more stringently enforced.” A number of persistent violations were cited including “too many 1G license plates (Gem County) going too fast,” and one homeowner’s report of motorists “running . . . the school bus stop sign,” endangering her child’s safety in route to and from school. Another property owner noted conditions warrant “creating special enforcement zones” and assessing “triple fines” against violators.

- ♦ Frontage Encroachment

Concerns in this category ranged from dissatisfaction that the proposed realignment(s) give preference to “Gem County commuters,” which virtually amounts to authorization “to go faster,” adding to current “property owners’ grief” associated with “increased traffic” and the “decreased property values” that will result from frontage concessions.

- ♦ Project Priority

These issues noted the importance of good “management of increased traffic flow” in concert with a “plan for growth,” but questioned that “Idaho 44 and access to I-84 needs to be addressed before Idaho 16 is widened.” The “Idaho 44 from the Eagle bypass needs to be widened” in the opinion of two participants to “four lanes,” and that project “should be on the table now” in the opinion of two others in the group. In the opinion of yet another member, subsequent to the above action the plan should consider “taking Idaho 16 and run it straight through to I-84 to improve congestion and traffic flow at Idaho 44 and Idaho 16.”

- ♦ Ineffective Meeting Process

This category addressed concern “with having more meetings with more people hired to appease the people affected, with no [resulting] action,” and that more generally the “meetings aren’t helping.” The issue that is perceived unresolved is that “Gem County commuters want a faster way to get to work through our places without considering our livelihoods, that the route runs through our businesses.” Concerted voice was given to the need for “sensible and reasonable spending of tax dollars,” this especially in regard to meeting time and expense perceived to be wasted on foregone determinations.

In sum, three (3) themes emerged for which there was expressed consensus in reference to recommended improvements:

- ♦ Widen existing roadway with turn lanes
- ♦ Lower speed limit
- ♦ Enact stringent enforcement

## Additional Comments Received After the Task Force Meeting

A summary of additional comments received by ITD after the May 6, 2003 task force meeting is listed below:

### *Substation Road*

- ♦ Can the stop light at the intersection of Substation Rd. and Idaho 16 be a blinking yellow light for highway traffic and a red stop light for Substation traffic? Then at peak traffic times switch to a regular stop light?
- ♦ Do not install traffic light at Substation Road
- ♦ Impose a prohibition of "compression braking noise" by trucks coming down the grade into Emmett
- ♦ Install "sound walls" on both sides of Idaho 16 between Cherry Lane and Substation Road
- ♦ Change the speed limit to 50 mph down Freezeout Hill Past Substation Road, then lower it to 45 mph near the new Albertson's store

### *Frontage and Backage Roads*

- ♦ If a plan with frontage roads is used, will property owners have to pay for the costs on their property frontage?
- ♦ What are frontage/backage roads? Are them permanent or temporary until the project is completed?
- ♦ Is there any consideration for a backage road out of the Hillsdale subdivision, which would allow us to use alternative roads like Beacon Light?

### *Idaho 16 Improvement Study Alternatives, Route and Options*

- ♦ West Boise should be higher on the priority list, with subdivisions going in along Chinden and State Street, that's where the bottleneck really is
- ♦ Develop an east-west route on Dry Creek on Chaparral to north of Eagle Road
- ♦ Our vote for improvements to Idaho 16 would be "Alternative 1-Option A"
- ♦ Moving the highway from Idaho 44 to the S-curve makes no sense. Building a whole new highway is more expensive than widening the existing road

### *Property Impacts*

- ♦ My house is 40 feet from Idaho 16, I would like to know how each of the current alternatives and options would affect my property

- ♦ How much money is projected to be allotted for the project to be paid out to property owners?
- ♦ Take this project to Linder Road. It already crosses the river and doesn't impact as many homes.

**Fourth public meeting:** September 24, 2003 (4-7 p.m.)  
Firebird Raceway Pavilion  
8551 Highway 16  
Eagle, Idaho

- ♦ A total of 157 people attended the public meeting.
- ♦ Of those 157 participants, 93 were male.
- ♦ Of those 157 participants, 64 were female.
- ♦ 149 participants were representing themselves as business, property/homeowners, interested citizens or citizen groups.
- ♦ One participant was from the Idaho State Legislature
- ♦ Eight participants were from local, state and federal agencies
- ♦ One participant was from the media

## Meeting Notification Schedule

All mailings were sent to addresses within the project area that includes Emmett, Eagle and Star through a zip code mail drop that reached 8,314 addresses. In addition, a mailing list was developed from the stakeholder list that includes property owners, city, county and state officials, media and residents out of the project area that are interested in the project. The list included 676, bringing the total mailing to 8,990. More than 200 stakeholders also received a telephone call or message as a meeting reminder.

\*All mailings were sent to individuals on the stakeholder list as well as through a zip code mail drop in Emmett, Eagle and Star that reached 8,596 addresses within the project area.

Sept. 03, 2003	Project update brochure mailed to project stakeholders
Sept. 10, 2003	Newspaper ad appears in the Emmett Messenger Index
Sept. 15, 2003	Press release distributed to local media
Sept. 17, 2003	Newspaper ad appears in the Idaho Statesman and Messenger Index
Sept. 18, 2003	Press release distributed to local media
Sept. 21, 2003	Newspaper ad appears in Idaho Statesman
Sept. 24, 2003	Public meeting held
Oct. 8, 2003	Comment period ends

## *Meeting Overview*

Project officials provided information about each of the original alternatives and a new option for the Idaho 16 corridor at the meeting. The new design option was developed based on public input received at meetings in April and May 2003. Project displays showed use of frontage and backage roads, access management, environmental maps, the Statewide Transportation Improvement Program, right-of-way, and traffic. Information concerning the Firebird Raceway passing lanes and the Freezeout Hill passing lanes projects was also displayed. Representatives from COMPASS, ACDS and GCDS attended the open house to answer questions from the public.

## **Summary of Written Comments**

Comments were collected from September 24, 2003 through October 8, 2003 regarding the Idaho 16 Improvement Study. Meeting participants, home/business-owners, citizen groups, elected officials and interested citizens provided the Idaho Transportation Department with 19 written comments. Numerous issues and concerns regarding the Idaho 16 projects were expressed in each comment form including:

### *Non-project Specific Comments*

- ◆ Address mail delivery
- ◆ Need to think about adding a bike lane, or not allowing bikes on the highway. Fund the bike lane with a registration on the bikes; autos pay one
- ◆ Do away with the bike lane, Have bikes use frontage roads

### *Idaho 16 Improvement Study*

- ◆ Slopes are up to 45% to West High Ridge Lane from Equest Lane
- ◆ Proposal will take out five irrigation systems with 100' r/w-even a 60' r/w
- ◆ I am for frontage roads. Access should be a big issue here and safely accessing the highway should be more important than the convenience of an individual access.
- ◆ Plan 1C is the way to go
- ◆ Don't make another Eagle Road. I would favor full freeway interchanges instead of stoplights at the four intersections in the length of the highway
- ◆ Typical Sections/Intersections are a hazard for any traffic making a left turn. This idea needs more research.
- ◆ Look into the traffic going to Firebird Race Track coming off a frontage road instead of Idaho 16
- ◆ Don't forget all of the horse owners, don't lock us out of limit our access to the hills



### *Traffic/Speed Limit/Safety*

- ♦ Need better enforcement on the road at peak times. Speed is not the problem, the problem is people driving too slow and creating a line of 20 cars behind them
- ♦ Need to enforce all traffic laws. Both speeders and slow drivers are an equal danger on this highway, but slow drivers are ignored
- ♦ 65 mph is a good speed

### *Freezeout Hill Passing Lanes*

- ♦ Recommend restrooms and kiosks be installed on the flat area immediately below the Freezeout Hill scenic overlook. People are using the Freezeout Memorial site as a bathroom and kiosks identifying surrounding features would be enhancements to the overlook

### *Firebird Passing Lanes*

- ♦ Allow re-signing and re-striping on the Firebird South acceleration lane to allow its use as a legal passing lane during all times when Firebird is not in use.

### *Substation Light*

- ♦ The traffic light is a bad idea for truck traffic. Within a few hundred feet there will be three traffic lights, Substation, the new light at Johns and the light at Washington. Bad decision.
- ♦ A fully operation traffic light is essential to this intersection. Accidents are frequent and the numbers won't be lessened with just a flashing amber light.

## Property Owner Meetings

Meeting Date/Location: May 5, 2003. Meeting held at The Winery at Eagle Knoll

Subject: Alternatives and Design Options North of Beacon Light Road

Attendees:

Mike Kauffman	286-0566
Joy Kauffman	286-0566
John Stone, Washington Group	386-5257
Dave Butzier, Washington Group	386-5183

### *Meeting Notes:*

- ♦ This meeting was set up to brainstorm ideas on accessing SH-16 with the development around the Vineyard and Golf Course.
- ♦ Mike mentioned they were one of four developers of the golf course but were sole owners of the winery.

- ♦ Mike and Joy were the owners of the Winery, which is to open the last part of June.
- ♦ Mike mentioned that Joel Ranua was their son-in-law.
- ♦ Mike and Joy mentioned that property owners in Ada County in the southern first three miles of the corridor are, in general, against alternative two.
- ♦ Washington Group mentioned that there was at least one property owner that we knew of in favor of Alternative 2.
- ♦ Mike and Joy expressed their concern about the bottleneck that Highway 44 would cause if Highway 44 were not included in the Improvement Study. Dave mentioned that a separate study was in the works to study Improvements to Highway 44.
- ♦ Joy thought the appropriate measure was to widen the existing highway to five lanes and drop the speed limit to 55 mph. Washington Group explained that Highway 16 was classified as a "Principal Arterial", which allowed access points every mile in rural areas and every ½ mile in urban areas.
- ♦ Mike and Joy mentioned that Alternative 2 disrupted the planned golf course and winery including the sewer treatment plant.
- ♦ Mike expressed concerns with Alternative 2 being considered that sales of the proposed subdivision lots had the potential of being a problem. Also, Mike expressed concerns about future changes in the current access to the Winery.
- ♦ Mike mentioned during the permit process that ITD (Matt) forced an additional 50' set back upon the initial requested 50' set back for a total of 100' for a future Frontage Road between the Ranua property and Beacon Light Road.
- ♦ Providing access through the proposed subdivision for the Winery was discussed. Mike and Joy were not in favor of this idea because Winery traffic would be forced through the subdivision.
- ♦ Providing access for the Winery off the Pollard Lane intersection was discussed. Mike and Joy felt that signing for the Winery access would be difficult.
- ♦ Providing access for the Winery off a frontage road to Beacon Light was discussed. Mike indicated that the frontage road would be within the 100' set back. John mentioned the 660' intersection set back could be a potential problem. Washington Group will further investigate this issue.
- ♦ The May 6 Task force meeting was discussed with WGI indicating that the meeting was setup to obtain property owner feedback and generate workable ideas for us to carry forward in the study. One map with R3 alternative was left for conversation with adjacent property owners.
- ♦ Washington Group mentioned no alternative or design option had been decided at this point. Other issues to be considered during this study includes; Environmental and Engineering data along with coordination with other governmental agencies.

**Meeting Date/Location:** May 22, 2003. Sam and Keri Rosti's shop off Pollard Lane

**Subject:** Alternatives and Design Options from highway 44 to W. Equest Lane

Attendees:	Sam Rosti	286-7685
	Kari Rosti	286-7685
	Mike Kauffman	
	Joy Kauffman	
	Clair Bowman, COMPASS	855-2558
	John Evans	
	Tony O'Neil	
	Ron Schirmer	
	William (Bill) Flack	
	Charles Howarth	
	Ronald Scott	
	Stephen Hoyt	
	Logan Schirmer	
	June Green	
	Bradley Thornton	
	Jimmy Young, Washington Group	386-5238
	Dave Butzier, Washington Group	386-5183
	Lana Servantius, ITD	334-8343
	Gwen Smith, ITD	334-4444

### *Meeting Notes:*

This meeting was setup with the Rosti's and other property owners invited by the Rosti's listed above who have concerns, questions, and ideas regarding the improvements being planned for SH-16.

The meeting was presided over by Sam Rosti who initialized questions and comments towards Washington Group International (WGI) and ITD. Sam then opened up the meeting for all property owners in attendance to ask questions and bring forward concerns and ideas. Dave Butzier of Washington Group International answered all questions and responded to all comments on behalf of Washington Group and ITD. Below is a list of the concerns, questions, and ideas brought up during the meeting.

- ♦ Property owners in attendance were generally in favor of widening existing SH-16 to the east. We informed them that there were two historical sites, the Gene Ray property (Grange) and the Frank Mosman Trust property, which ITD is required to avoid. The property owners were informed that currently we are exploring the option to widen existing SH-16 to the west to avoid the historical sites.
- ♦ Bradley Thornton, who currently lives on the east side of SH-16 within the first two miles, told us that he wouldn't object to relocating his house if necessary.
- ♦ Property owners present were generally in favor of lowering the posted speed to at least 55 mph within the first two miles on SH-16. They were told that currently this issue was being investigated by ITD.
- ♦ Sam Rosti brought up the idea of using Pollard and Plummer as backage roads on the west side of SH-16 and utilizing Palmer as a backage road on the east side of SH-16. Washington Group told them this would be considered but also informed them about potential issues providing access to property owners currently next to SH-16.

- ♦ We were asked which alternative and option was favored at this time. They were informed that we were currently creating a third option based on environmental, cultural, public comments, and design considerations. They were told that this would be a hybrid of Alternative 1.
- ♦ Sam Rosti brought forth the idea of extending a new highway from Emmett to SH-55 through the foothills where there are very few effected residents. He was told that we would continue working on improvements to SH-16 but he and other supporters of that suggestion could go to COMPASS and/or ITD with the idea.
- ♦ Many property owners at the meeting asked why we couldn't widen the existing SH-16 corridor to five lanes and not construct backage/frontage roads. They were told that we were planning for long-term growth and need to limit the access to SH-16 so we don't run into the problems currently occurring on Eagle Road.
- ♦ The property owners asked if SH-44 would be improved. They were told that the same type of study would be occurring for SH-44 and we didn't know which would be improved first. Gwen Smith suggested that input regarding this issue should be directed towards COMPASS.
- ♦ Property owners were asked if there were any plans to extend SH-16 to the freeway. They were told that this was something currently being looked at.
- ♦ Charles Howarth brought up the idea of not improving the first two miles of SH-16 and leaving it with two lanes to help slow down traffic. He was told that we would investigate that idea.
- ♦ The property owners asked timing of the project. They were told that the Improvement Study itself would continue through the middle of 2004. When the study is completed, and a plan is developed, then it will be up to the Idaho Transportation Board as to how the projects will get funded and when. The plan will provide estimates of what the improvements will cost and then be split into smaller projects that can be funded. No one knows at this time how the projects will be split up or when they will be funded. It will be a long-term plan with projects spread over many years most likely.

**Meeting Date/Location:** June 3, 2003, Meeting held at 4035 Harley Road

**Subject:** Alternatives and Design Options South of Beacon Light Road

<b>Attendees:</b>	June Flack	286-7586
	Bill Flack	286-7386
	John Stone, Washington Group	386-5257
	Dave Butzier, Washington Group	386-5183
	Lana Servatius, ITD	334-8343
	Bruce Harral, ITD	334-8901

### *Meeting Notes:*

- ♦ This meeting was setup to obtain feedback from the frontage road in alternative 1.
- ♦ John opened the meeting stating that WGI modified the frontage road location based on public comment from the April 8 meeting.
- ♦ John showed the modified frontage road location and the frontage road location as shown in the April 8 public meeting. The drawings were left for Bill and June.



**APPENDIX D**  
**PUBLIC INVOLVEMENT SUMMARY**

- ♦ June asked if ITD would purchase the area between the frontage roads and SH-16 at the intersections.
- ♦ Lana mentioned if the area was an uneconomic remainder. Then ITD would purchase the area. However, if the area could be developed then ITD would only purchase the necessary property and pay damages.
- ♦ June asked how much area was included between the frontage road and SH-16 at the intersections.
- ♦ Bruce explained that exact areas have not been determined yet. There were still some questions to be answered such as design speed that would determine the total impacts. He explained that in both the public meeting and the modified drawings were only conceptual drawings but we wanted to get public buy in with concept before proceeding with the design. Bruce did give the rough estimate between 5-10 acres.
- ♦ The Flacks mentioned that it would be nice to have enough area remaining to be large enough to develop if the county would allow and they expressed their concern about coordinating with Ada County Planning and Zoning.
- ♦ Dave explained that we were working with Ada County and will continue to do so throughout the project. He mentioned that we have met with Ada and Gem County Planning and that ITD has met with the County Commissioners. Dave mentioned we would work with them and Ada County zoning requirements to determine the least impacting frontage road location and area between the frontage road and SH-16.
- ♦ John mentioned that the purpose of the study would be a plan that Ada County could adopt into their comprehensive plan.
- ♦ Center pivot relocations and reimbursable damages were discussed. If they need to move due to the layout of the frontage road, then ITD would pay for that relocation.
- ♦ Adjacent property owners and current easements were discussed.
- ♦ Both Bill and June were in favor of the modified frontage road location over the location presented at the April 8 public meeting.
- ♦ A developer's option to relocate the frontage road after the study and right-of-way purchase was discussed.
- ♦ Both and June were in favor of dropping the speed limit on SH-16.

**Meeting Date/Locations:** June 10, 2003. Meeting held at The Winery at Eagle Knoll

**Subject:** Alternatives and Design Options North of Beacon Light Road

<b>Attendees:</b>	Mike Kauffman	286-0566
	Joy Kauffman	286-0566
	John Stone, Washington Group	386-5257
	Dave Butzier, Washington Group	386-5183
	Bruce Harral, ITD	334-8901
	Barbara Waite, ITD	334-8355

## Meeting Notes:

- ♦ This meeting was setup as a follow up from the May 5 meeting. Washington Group displayed three frontage road options for accessing SH-16. One illustrated a continuous frontage road from Pollard Lane to Beacon Light. One illustrated a frontage road to the Winery with Ruana's residential access through the proposed subdivision. The last drawing illustrated a frontage road to the Winery with a driveway following the west property line.
- ♦ John displayed the requested frontage road system in front of the golf course and how obtaining the 660' tie into Beacon Light would impact the golf course and the subdivision. The drawing illustrated a continuous frontage road from Pollard Lane to Beacon Light. Mike liked this option the least.
- ♦ Mike had some concerns about clients getting to the Winery. Dave mentioned that there was a high probability that the Winery would be a thriving business by the time SH-16 was constructed to the proposed plan. Bruce mentioned that the construction work would not begin before 2008 and would likely be after 2008.
- ♦ Joy had some concerns about the invested money into the current proposed entrance into the Winery. Dave explained that they would be reimbursed for the entrance expenses and Barbara explained that value would be established once negotiations for ROW purchase began.
- ♦ Joy and Mike mentioned the provided access would have to accommodate buses.
- ♦ Joy had some concerns about accessing the Winery during construction. Dave mentioned that would be a requirement and is usually a requirement of ITD projects. We explained that we would work with them once the time came for construction.
- ♦ Mike had an idea of placing underpass for the traffic to the Winery and the two residential homes. Bruce explained that grade differences might not permit the use of an underpass with the available space. The underpass option was discussed at length. There appeared to be some benefits and agreed to look further into the underpass option. Mike committed to talking with their engineer to provide WGI an electronic layout of the Winery. Washington Group will contact Tealey's Land Surveying to obtain electronic drawings of the layout.
- ♦ Mike mentioned that they have been working with Matt Ward in obtaining an access permit from ITD.

**Meeting Date/Location:** August 19, 2003. 8100 Equest Lane (Gwynn's Residence)

**Subject:** Alternatives and Design Options North of Beacon Light Road

<b>Attendees:</b>	Bruce and Joyce Bente	
	Mike and Joy Kauffman	939-5494
	Larry Kling	286-7474
	Mike Ross	702-855-9020
	Randy and Cindy Gwynn	286-7584
	Shawn and Nancy Kling	286-7380
	Bob and Connie Davis	286-9629
	John and Doely Moody	286-7453
	Jay and Kim Greene	286-9108
	Logan and Dae Schermier	286-7010
	Dave Koeppen	286-9512
	Maxine Schvaneveldt	286-7997

Jed Baker	286-7997
John Stone, Washington Group	386-5257
Dave Butzier, Washington Group	386-5183
Bruce Harral, ITD	334-8901
Lana Servatius, ITD	334-8355

## Meeting Notes:

The general design and alternatives were discussed. Property owners also raised concerns about how the alternatives would affect their property lines.

**Meeting Date/Location:** October 1, 2003. 8100 Equest Lane (Gwynn's Residents)

**Subject:** Alternatives and Design Options North of Beacon Light Road

<b>Attendees:</b>	Bruce and Joyce Bente	286-7907
	Shawn Kling	286-7380
	Randy and Cindy Gwynn	286-7584
	Kelli Herbert	440-0374
	Bob and Connie Davis	286-9629
	John and Doely Moody	286-7453
	Jay and Kim Greene	286-9108
	Brian and Lisa Harm	286-9355
	Dave and Kay Koeppen	286-9512
	John Fiorino	286-9369
	Paul Hudson	286-7499
	John Stone, Washington Group	386-5257
	Dave Butzier, Washington Group	386-5183
	Bruce Harral, ITD	334-8901
	Lana Servatius, ITD	334-8355

## Meeting Notes

John showed a variation of designs for the Equest Lane area. Washington Group explained the plans were developed based on the comments from the last meeting. One design showed the frontage road on the existing roadway, which had impacts to the Vineyard and Golf Course through the reversing curves. Two designs showed a frontage road on the eastside of the existing highway 16 which had impacts to the Veterinary clinic, Paul Hudson's property and Michael Ross's property. All three designs provided access to Equest Lane via a frontage road from Beacon Light Road.

- ♦ Generally, none of the residents in area liked any of the designs presented. Residents felt that Equest should be an access point and were concerned about impacts to the Veterinary clinic.
- ♦ Generally, the local residents questioned the impacts to the Vineyard and Golf Course. They felt the brunt of the impacts should happen to these businesses.
- ♦ Randy Gwynn felt that a five-lane section should be considered as part of this study. We briefly explained the problems with a five-lane section and the importance of access control. The five-lane section will not be considered as an alternative.
- ♦ The proposed design in the concept report was discussed at length. Grades up to the cul-de-sac were discussed and residents voiced a concern about the steepness. Randy Gwynn

expressed concern on the alignment going through his residents. Washington reaffirmed the intent was not to put the alignment through his residents. Recent survey staking was explained to him.

- ♦ John Moody was concerned with the utilities and irrigation along the current alignment of Equest Lane and the impacts of a wider roadway template on these utilities and irrigation. He voiced a concern about the road being in a flood plain.
- ♦ John Moody then presented a plan to go up to the cul-de-sac from the current High Ridge Lane. He explained that the layout grade from his plan was 8% maximum with most of it at a 6.6% grade. He tied his proposed alignment 120 feet back from the main intersection of Idaho 16 and Equest Lane. Washington Group explained the 660 feet back into an intersection requirement that we used as design criteria but would check into the proposed plan further.
- ♦ Generally, the residents did not like the frontage road from Pollard Lane to the Vineyard. They did not believe constructing the frontage road for the Vineyard was ITD's responsibility. Residents felt the access for the Vineyard should/could come from the recently platted subdivision off Beacon Light Road.
- ♦ Bruce Benty proposed to cul-de-sac Pollard Lane and eliminate the frontage road provided for the Vineyard. To cul-de-sac Pollard Lane would eliminate the intersection of Pollard Lane with Idaho 16 and reduce the impacts to his property.
- ♦ We closed the meeting by telling the local residents that John Moody's proposal would be evaluated but mentioned the obstacles and coordination efforts that must happen first.

**Meeting Date/Location:** October 29, 2003. Meeting held at The Winery at Eagle Knoll

**Subject:** Alternatives and Design Options North of Beacon Light Road

<b>Attendees:</b>	Mike Kauffman	286-0566
	Joy Kauffman, Owner	286-0566
	John Stone, Washington Group	386-5257
	Bruce Harral, ITD	334-8901
	Barbara Waite, ITD	334-8355

## *Meeting Notes:*

- ♦ Group displayed the underpass idea that resulted from the meeting held in June. The drawing illustrated impacts to the Vineyard parking lot. Washington Group explained that it takes approximately 450' in length to go from the underpass elevation to natural ground elevation. We felt the impact was too large to be acceptable to the property owners. Mike and Joy agreed.
- ♦ Washington Group showed the current proposal of the access to the Vineyard from Pollard Lane. The impacts to the Golf Course and Vineyard were discussed. Discussion on the wall between the mainline highway and frontage road and other measures to minimize impacts was discussed. The proposal appeared to be acceptable but not ideal for Mike and Joy.
- ♦ The proposed road from the platted subdivision to the Ruana property. This meeting was setup as a follow up from the meeting held in June. Washington was discussed. Eliminating the road and providing access through the Vineyard parking lot to the Ruana property was discussed. It was determined discussions with Ruanas was necessary before a conclusion could be made.



Washington Group was going to provide a drawing for Mike and Joy for discussions with Joel Ruana.

- ♦ Mike and Joy were concerned with roadway signing for the Vineyard. Tourist Oriented Directional Signs (TODS) program was discussed. Barbara provided the contact information to Mike and Joy.

**Meeting Date/Location:** November 1, 2003. 8200 Highway 16 (Brundy's Residence)

**Subject:** Design Options East of Firebird Raceway

<b>Attendees:</b>	Clifford R. Johnson	336-3899
	Janie Walsh	8200 Hwy 16 83616
	John Miller	863-6335
	Jim and Germane Brudy	286-9166
	Dana Higginson	286-9247
	John Stone, Washington Group	386-5257
	Dave Butzier, Washington Group	386-5183
	Bruce Harral, ITD	334-8901

### *Meeting Notes:*

- ♦ Washington Group opened by saying that during the Public meeting held on September 24, 2003, we heard complaints with the current alternative about location of the frontage road. The meeting was set up to see if minor modifications could be done that everybody agreed upon.
- ♦ Clifford Johnson began with his idea of coming down the next property line to the north instead of the current design. Washington Group displayed this option based on comments made at the public meeting.
- ♦ Dana Higginson preferred not to split the Higginson property into several different parcels because of the different family owners. She preferred the alignment to follow the southern property line.
- ♦ Brundys preferred the frontage road to follow their northern property line instead of the western property line.
- ♦ Provisions for providing access to John Miller were discussed. Clifford Johnson and Brundys agreed to allow an access road for John Miller between their two property lines.
- ♦ All residents that attended agreed with the proposed design option and design changes from the September 24, 2003 proposal.

## Meetings with ACHD, Gem & Ada County, Legislators

**Meeting Date/Location:** February 18, 2003. Meeting held at Gem County Planning.

**Subject:** Alternatives and Design Options

<b>Attendees:</b>	Bruce Harral, ITD	334-8901
	Debra Lish, ADA	365-5144
	John Stone, Washington Group	386-5257
	Dave Butzier, Washington Group	386-5183

### *Meetings Notes:*

- ◆ Discussed the two alternatives and two design options. Mentioned both alternatives provided for a 5-lane section between Substation and Washington.
- ◆ We expanded on the two design options and described the potential impacts. The backage road design option provides; less impacts to individual property owners, future intermediate access points could be easily added and area between backage road and mainline lends itself to commercial development. The frontage road design option; provides mixed-use development, reduces impacts to individual property owners and future intermediate access points cannot be easily added.
- ◆ Washington Group mentioned that a task force meeting was set for February 20 and a public meeting would follow about the end of March or early April.
- ◆ Debra mentioned that urban development could not occur south of Cherry Lane because of the current zoning requirements. The current zoning policy requires residential developments south of Cherry Lane to have a maximum density of 1 building site per 5 acres. Currently, between Cherry Lane and Washington was zoned as mixed-use with both commercial and residential use.
- ◆ Debra mentioned that current zoning does not seem to fit the backage road design option and that the frontage road option seemed to fit more appropriately.
- ◆ At this time no fatal flaw issues with either of the two alternatives or two design options were mentioned. Wash provided drawing of the alternatives and design options to review and comment. Wash requested that all comments pertaining the drawings be received before March 7, 2003.
- ◆ The process for the improvement study including the environmental study, right-of-way preservation, and public meetings were discussed.

**Meeting Date/Location:** February 18, 2003. Meeting held at Ada County Court House.

**Subject:** Alternatives and Design Options

<b>Attendees:</b>	Bruce Harral, ITD	334-8901
	Steve Hopkins, ADA	287-7912
	John Stone, Washington Group	386-5257
	Dave Butzier, Washington Group	386-5183

## Meeting Notes:

- ♦ Discussed the two alternatives and two design options.
- ♦ Washington Group mentioned that a task force meeting was set for February 20 and a public meeting would follow about the end of March or early April.
- ♦ Steve mentioned that urban development could not occur between the backage road and the main alignment because of the current zoning requirements. The current zoning policy requires residential developments to have a maximum density of 1 dwelling per 10 acres. The maximum density maybe reduced as long as open space is provided with the development. Commercial development does not meet the current zoning policy.
- ♦ Steve mentioned for the zoning policy to be modified that the area would have to lie in an impact area. The closest impact area would be Star, which currently ends at Pollard Lane. Once the zoning lies in an impact area water and sewer services would have to be provided to the developments.
- ♦ Ada provided the Zoning Regulations and Historic Site Inventory information.
- ♦ At this time no fatal flaw issues with either of the two alternatives or two design options were mentioned. Wash provided drawing of the alternatives and design options to review and comment. Washington Group requested that all comments pertaining the drawings be received before March 7, 2003.
- ♦ The tasks for the improvement study including the environmental study, right-of-way preservation, and public meetings were discussed.
- ♦ Steve mentioned that once the plan was completed Ada County would adopt the plan into their comprehensive plan.

**Meeting Date/Location:** April 25, 2003. Meeting held at 3<sup>rd</sup> Floor Capitol Building

**Subject:** Alternatives and Design Options

<b>Attendees:</b>	Bruce Harral, ITD	334-8901
	Brad Little	365-4611
	John Stone, Washington Group	386-5257
	Dave Butzier, Washington Group	386-5183

Washington Group mentioned that approximately 150 people attended the April 8 public meeting.

- ♦ We expanded on the two design options and described the potential impacts. The backage road design option provides; less impacts to individual property owners, future intermediate access points could be easily added and area between backage road and mainline lends itself to commercial development. The frontage road design option; provides mixed-use development, reduces impacts to individual property owners and future intermediate access points cannot be easily added.
- ♦ We mentioned the current zoning policy requires a maximum density of 1 building site per 5 acres.
- ♦ At this time no fatal flaw issues with either of the two alternatives or two design options were mentioned.

- ♦ We mentioned that once the study was completed Ada County and Gem County would adopt the plan into their comprehensive plan.
- ♦ Senator Little expanded on the livestock drive across SH-16. Senator Little suggested that two livestock crossing should be provided. Washington Group will continue to work with landowners for livestock crossing locations.
- ♦ Senator Little believed that the frontage road design option was more appropriate through his property. We indicated that construction of the frontage road system would not necessarily occur unless development occurred. Senator appeared approachable for right-of-way acquisition but details were not expanded upon. Agreed to revisit this once the study is further along.

**Meeting Date/Location:** June 27, 2003. Meeting held at ACHD in Meridian room

**Subject:** Frontage Road Horizontal Design

<b>Attendees:</b>	<b>Joe Rosenlund, ACHD</b>	<b>387-6140</b>
	<b>Dave Butzier, Washington Group</b>	<b>386-5183</b>
	<b>John Stone, Washington Group</b>	<b>386-5257</b>
	<b>Cameron Waite, Washington Group</b>	<b>386-6070</b>

**Meeting Notes:**

- ♦ Joe reviewed roll plots of the entire project within Ada County. John explained that we are designing the frontage road intersections to provide 10+ acres of usable land between the frontage road and the highway for development.
- ♦ In discussing the winery, Joe agreed that the best option appeared to be giving them access off of the realigned Pollard/Equest Lane. A sign on the highway could direct people to the winery.
- ♦ Joe thought the standard right-of-way for collectors would be 50' minimum with a 6' shoulder, 3' paved and 3' gravel. We agreed the roads would be built to ACHD Policy standards.
- ♦ Overall, Joe agreed with the design as a good design and was supportive of the project. We will continue to keep in contact so ACHD is aware of the design of the project and is able to comment and provide input to the project.

## ***Washington Group Action Items:***

- ♦ WGI will continue with the frontage road designs based on direction from ITD, the public, and this meeting.

**Meeting Date/Location:** October 15, 2003. Meeting held at ACHD in Star room

**Subject:** Frontage Road Horizontal Design

<b>Attendees:</b>	<b>Terry Little, ACHD</b>	<b>387-6140 ext. 142</b>
	<b>Joe Rosenlund, ACHD</b>	<b>387-6140 ext. 145</b>
	<b>Shawn Martin, ACHD</b>	<b>387-6140 ext. 154</b>
	<b>Christy Richardson, ACHD</b>	<b>387-6170 ext. 178</b>
	<b>Dave Butzier, Washington Group</b>	<b>386-5183</b>



John Stone, Washington Group 386-5257  
Cameron Waite, Washington Group 386-6070

### *Meeting Notes:*

- ♦ John reviewed roll plots of the entire project within Ada County with Terry, Joe, Shawn, and Christy. John explained that we are designing the frontage road intersections to provide 10+ acres of usable land between the frontage road and the highway for development. Also, the design standards are for a 35 mph design speed in most cases and the areas with less than 35 mph design were pointed out during the presentation.
- ♦ The frontage road typical section of 12' lanes with 4' shoulders on the frontage roads was discussed. No issues were mentioned with this typical section.
- ♦ Future zoning in the project area is difficult to determine at this time. Christy asked how Ada County felt about the project. Dave replied that in our meeting with Ada County they have maintained that the zoning will not change in the near future. It was agreed that the improvements to the roadway system would attract development along the highway.
- ♦ Terry suggested a road to connect the Star Mercantile parcel with the proposed frontage road to the west. He also asked whether the frontage roads would be considered state or county and who would maintain them. Dave explained it was our understanding that they would be county roads and fall under ACHD's jurisdiction. Funding of additional roads was discussed but is unknown at this time.
- ♦ We reviewed the options at Equest Lane and High Ridge Lane. Joe and Terry felt that the option lining up the frontage road with Jay Green's approach to Equest Lane was acceptable. The separation between the Idaho 16 and frontage road edges of pavement is approximately 175'. Any separation less than this may require the road to be moved in the future as surrounding parcels redevelop. Overall, ACHD was supportive of the project. It could be a prototype of highway improvements in the future. We will continue to keep in contact so ACHD is aware of the design and able to comment and provide input to the project.

### *Washington Group Action Items*

- ♦ Add the access road for the Star Mercantile parcel.
- ♦ Design the High Ridge access option with 175' separation from Idaho 16. Prepare to present this option to adjacent property owners.